



## DATA REPORT AND PROPOSED ADDITIONAL INVESTIGATION

TO: Brandon Pursel, USEPA  
Dave Favero, RACER TRUST  
Grant Trigger, RACER TRUST

FROM: Mike Smith, Applied EcoSystems, Inc.

DATE: February 23, 2016

SUBJECT: RACER Flint West Industrial Land (#12990)  
Summary of Additional Site Investigation

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- Figure 5: Summary of Drinking Water and GSI Exceedances in Soil (2012-2014)

### ATTACHMENTS:

- Attachment 1: Cross Section Diagrams
- Attachment 2: Groundwater Analytical Tables (All investigations conducted by RACER to-date)
- Attachment 3: Groundwater Analytical Laboratory Report (November 11, 2015)
- Attachment 4: Soil Analytical Tables (All investigations conducted by RACER to-date)

## 1.0 INTRODUCTION

Applied EcoSystems, Inc. (Applied EcoSystems) completed a groundwater monitoring event at the RACER Trust Flint West Industrial Land - #12990 Site on October 26 and 27, 2015 as outlined in the August 7, 2015 Data Report submitted to the United States Environmental Protection Agency (USEPA).

A Site Location Map is included as Figure 1. The Site consists of approximately five acres of land located west of Stevens Street and north of Glenwood Avenue in Flint, Genesee County, Michigan. Almost the entire Site consists of concrete pavement, remaining after the demolition of a former manufacturing building. The majority of the Site is secured with a locked chain-link fence.

The Site is developed with a Consumers Energy electrical substation with an equipment shelter in the central portion and a utility conduit shed on the southeast corner. Per John Ebenhoeh with Consumers Energy, the small building on the southeast corner is a shelter for conduits that run under the road to the GM tool and die facility. This building is accessed approximately once per year for approximately two hours. The building in the fenced area is a support equipment shelter for the substation. The fenced area is accessed approximately once per month for approximately two hours, and the building itself is accessed less frequently and for shorter durations.

There were no exceptions to the approved USEPA Scope of Work.

## 2.0 INVESTIGATION ACTIVITIES COMPLETED

### Groundwater Monitoring (Task 6)

- All wells were gauged. No NAPL was encountered.
- All wells were sampled, except MW100S, which did not produce sufficient groundwater for sample collection. Samples were analyzed for VOCs, and the following metals (total and dissolved): arsenic, chromium, copper, lead, selenium, and zinc. In addition, analysis was requested for hexavalent chromium; however, due to sample turbidity, analysis for hexavalent chromium was not feasible. Analytical results are attached. A Soil Boring and Well Location Map is attached as Figure 2. A Groundwater Contour Map, prepared using the October 2015 groundwater elevation data is included as Figure 3 in Appendix A. Cross section diagrams, showing soil types, groundwater elevations, and soil and groundwater data, are included in Attachment 1.

### 3.0 INVESTIGATION RESULTS

Comparison of groundwater data to current (December 30, 2013) Michigan Department of Environmental Quality (MDEQ) Generic Residential and Non-Residential Cleanup Criteria (GRCC) indicates the following:

**Metals:** Select metals were detected above drinking water and GSI criteria as shown in the table below. The metals concentrations are consistent with expected regional conditions, do not appear to represent a plume, and are believed to be naturally-occurring. Although the MDEQ has published state-wide and regional “background” concentrations for soils, there are no such values published for groundwater. The concentrations are generally consistent with concentrations encountered by Applied EcoSystems at other uncontaminated sites in the Flint area. Total metals results appear to have been influenced by turbidity. Accordingly, the dissolved metals concentrations are considered to be more representative of site conditions for the purposes of this assessment.

Monitoring well MW100S did not produce sufficient groundwater for sample collection.

**Table 1.0 – Dissolved Metals Exceedances in Groundwater**

Well ID	Metal	Drinking Water Criterion	GSI Criterion	Result
MW-105S	dissolved selenium	50	5	9.9
MW-106SR	dissolved chromium	100	160	128
MW-112S	dissolved copper	1,000	20	115
MW-112S	dissolved selenium	50	5	102

All results are expressed in ug/L

**VOCs:** (VOCs comparison includes the updated criteria published by the MDEQ on December 30, 2013). Exceedances were present as follows:

**Table 2.0 – VOCs Exceedances in Groundwater**

Well ID	VOC	Drinking Water Criterion	GSI Criterion	Result
MW-105S	Tetrachloroethene	5	60	58
MW-109S*	Cis-1,2 Dichloroethene	70	620	80
	Trichloroethene	5	200	200
	Vinyl Chloride	2	13	20
MW-111S	Trichloroethene	5	200	92
	Vinyl Chloride	2	13	97
MW-113S*	Trichloroethene	5	200	67

- All results are expressed in ug/L

- \* Located on the former railroad property to the north of Flint West #12990.

Criteria in red indicate an exceedance for that pathway. A table of all groundwater sample analytical results for groundwater samples collected by RACER is included as Attachment 2. Sample analytical results for the October 2015 groundwater monitoring event are included as Attachment 3. Figure 4 illustrates the GSI and drinking water exceedances in groundwater identified from 2012 through 2015.

The primary constituents of concern are Trichloroethene, Tetrachloroethene, Vinyl Chloride, and cis-1,2-Dichloroethene. Elevated concentrations of Trichloroethene persist in down gradient wells. Tetrachloroethene was not detected in any of the down gradient wells. Note that elevated Tetrachloroethene levels have been consistently detected in one up gradient well, MW-105S since April 2012. While one well, MW-109S, still exhibits concentrations of Vinyl Chloride slightly above the DW criterion, concentrations of Vinyl Chloride appear to have significantly decreased overall. Concentrations of cis-1,2-Dichloroethene have been below DW and GSI criteria since April 2014 until this past event, where cis-1,2-Dichloroethene was detected in MW-109S slightly above the DW criterion.

Figure 5 is a map showing a summary of drinking water and GSI exceedances in soil from 2012 through 2014. Tables, showing all soil analytical results for samples collected by RACER, are included as Attachment 4.

4.0 PROPOSED ADDITIONAL INVESTIGATION

An additional round of groundwater monitoring is planned for April 2016. At least 72 hours prior to sample collection, each well will be re-developed using a disposable bailer to maximize agitation and a submersible pump to remove sediment. Development water will be contained in 55-gallon drums and disposed of off-site. In addition to the metals and VOCs analysis completed previously, the samples will be analyzed for hexavalent chromium if possible, if turbidity levels are low enough. Other future action is dependent upon USEPA review and comment/approval of the previously submitted draft Corrective Measures Proposal (CMP).

5.0 PROPOSED SCHEDULE:

Groundwater monitoring is planned for April 2016. A schedule for any other future activities will be developed upon receipt of comments or approval from USEPA of the CMP.

## FIGURES

## SITE LOCATION MAP

RACER Flint West

**FIGURE**

1

**DATE**

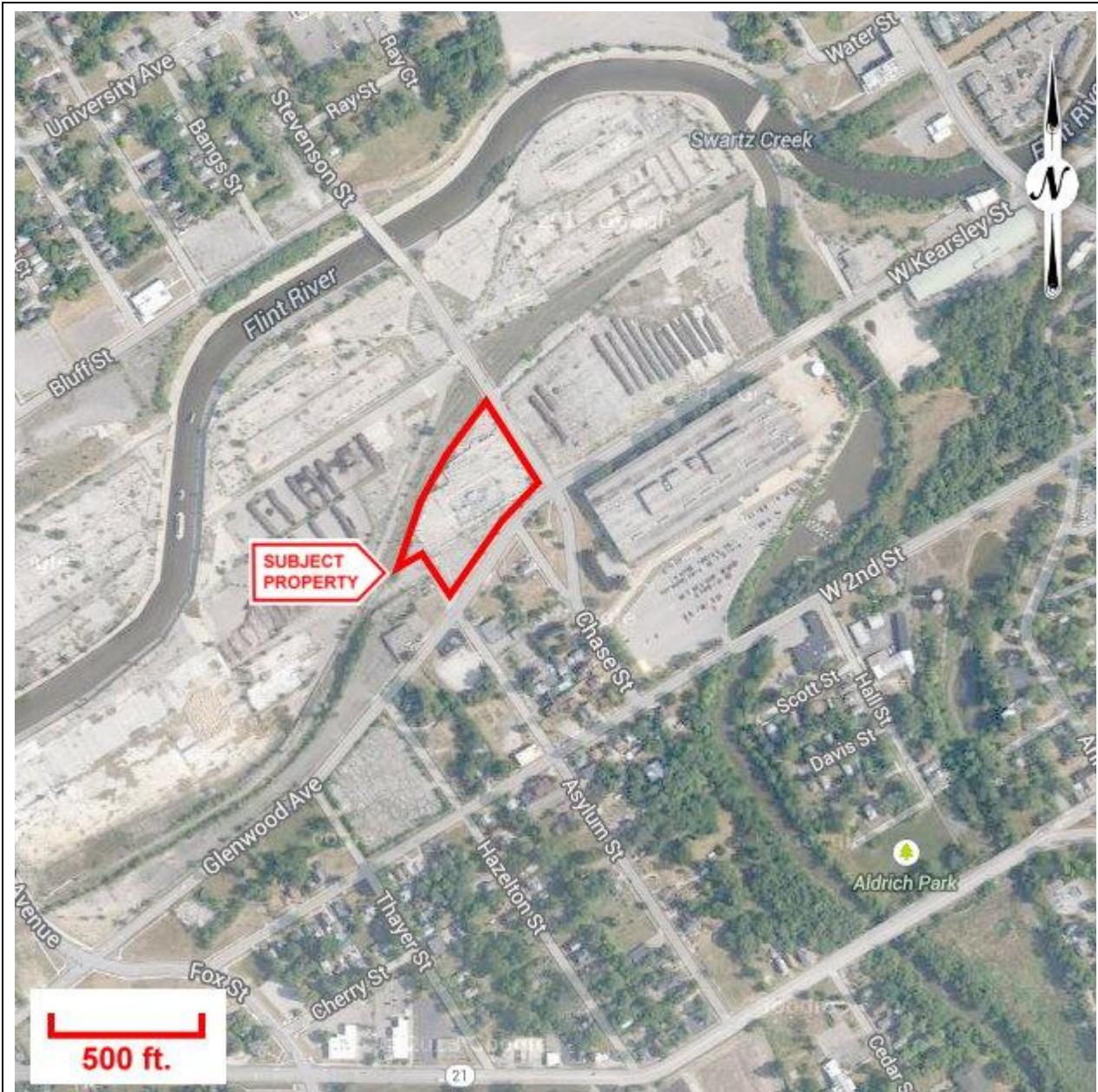
2014

**SCALE**

As Shown

**PROJECT No.**

11-4317-102



Source: United States Geological Survey

Property outline is approximate.



**Applied EcoSystems, Inc.**  
Environmental Management, Consulting & Field Services

G-4300 South Saginaw Street

Burton, Michigan 48529

**(810) 715-2525**

FAX (810) 715-2526

[www.AppliedEcoSystems.com](http://www.AppliedEcoSystems.com)



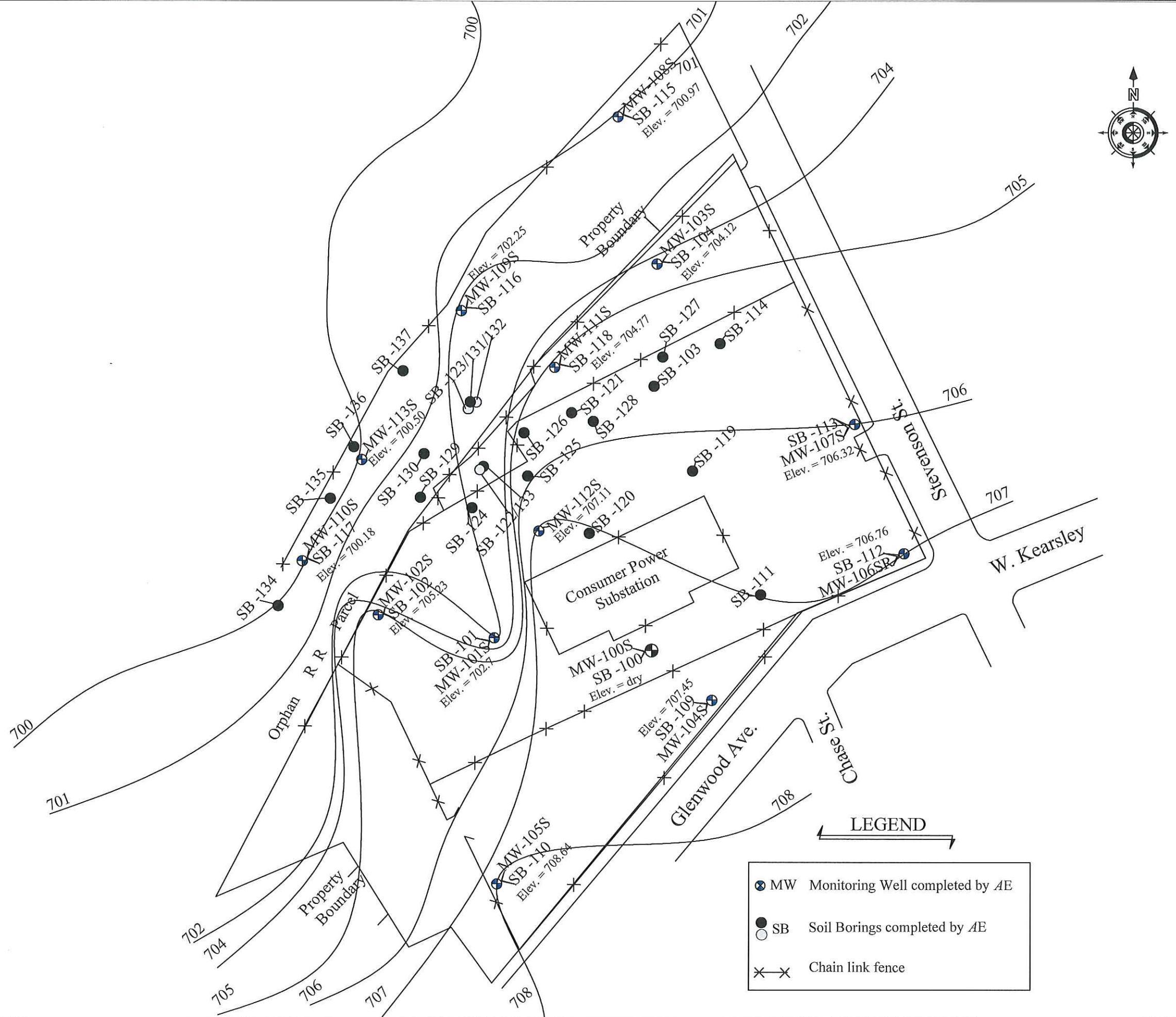
**Applied EcoSystems, Inc.**  
Environmental Management, Consulting & Field Services  
G-4300 South Saginaw Street, Burton, Michigan 48529  
Phone: 810.715.2525; Fax: 810.715.2526



### Soil Boring and Well Location Map

Racer Flint West - 12990  
Flint West Industrial Land, Flint, MI

DATE:	SCALE:
2015	As Shown
PROJECT:	FIGURE:
11-4317-102	2



## LEGEND

	MW Monitoring well
	Soil boring
	Multiple soil borings in one location
	Cross Section A - A'
	Cross Section B - B'
	Cross Section C - C'
	Trichloroethene - DW GRCC exceedance estimated boundary based on all groundwater sampling events
DW	Drinking Water Threshold
GRCC	General Residential Cleanup Criteria
Laboratory analytical data presented in parts per billion (ug/L)	

0' 30' 60' 90' 120'  
Approximate Scale in Feet

Groundwater Sampling Events	
April 2012	1
December 2012	2
April 2013	3
August 2013	4
December 2013	5
April 2014	6
July 2014	7
December 2014	8
May 2015	9
October 2015	10



MW-110S				
ANALYTE	DW	GSI	Exceedance	Sampling Event
Arsenic	10	10	11,41,20,55,30	4,5,6,8,10
Arsenic dissolved	10	10	21,17	6,8
Copper	1000	20	49,62, 278,059,736	2,4, 5,6,8
Copper dissolved	1000	20	28,90	6,10
Lead	4	44	16,19,61, 28,17,24,9,20,3	2,4,5,6,7,8
Lead dissolved	4	44	24,15	6,7
Chromium	100	160	101	5
Zinc	2400	260	556	8

MW-113S				
ANALYTE	DW	GSI	Exceedance	Sampling Event
Zinc	2400	260	7030,504	5,8
Zinc dissolved	2400	260	502	5
Chromium	100	160	479,2920, 132,170,822,	4,5,6,7,8,10
Chromium dissolved	100	160	128,152	6,7
Trichloroethylene	5	200	69,61,36,67, 3310,3	7,8,9,10
Lead	4	44	289,50	5,7,8,10
Lead dissolved	4	44	5	7
Copper	1000	20	4160,300,80	5,8,10
Arsenic	10	10	40,30	8,10

SB-131 TWT				
ANALYTE	DW	GSI	Exceedance	Sampling Event
Zinc	2400	260	7030,504	5,8
Lead dissolved	4	44	16	6
Trichloroethylene	5	200	81	6

SB-131 TWB

ANALYTE	DW	GSI	Exceedance	Sampling Event
Copper dissolved	1000	20	144	6
Lead dissolved	4	44	14	6
Trichloroethylene	5	200	78	6

MW-111S				
ANALYTE	DW	GSI	Exceedance	Sampling Event
Arsenic	10	10	13,60	2,10
Vinyl Chloride	2	13	195,99, 4,4,97	2,5,6,9,10
1,1-Dichloroethane	7	130	10,18	2,5
Trichloroethylene	5	200	115,6,180, 92,7,78,92	2,4,5,6,8,9,10
cis-1,2-Dichloroethane	70	620	160	5
Lead	4	44	20,140	8,10
Copper	1000	20	22,70	8,10
Chromium	100	160	237,1140	8,10
Selenium	50	5	6	7
Zinc	2400	260	350	10

MW-108S				
ANALYTE	DW	GSI	Exceedance	Sampling Event
Arsenic	10	10	13,18,4	5,10
Copper	1000	20	40,31,90	5,8,10
Lead	4	44	55,15,90	5,8,10
Selenium	50	5	6,6,7	3,6,7
Selenium dissolved	50	5	6	7
Zinc	2400	260	350	10

MW-103S				
ANALYTE	DW	GSI	Exceedance	Sampling Event
Arsenic	10	10	48,55,41,52,24,56,140	1,2,3,4,5,7,10
Arsenic dissolved	10	10	23,11	5,6
Chromium	100	160	120	10
Copper	1000	20	160	10
Lead	4	44	80	10
Zinc	2400	260	410	10

SB-127 TWT				
ANALYTE	DW	GSI	Exceedance	Sampling Event
Arsenic dissolved	10	10	57	6
Lead dissolved	4	44	5	6
Vinyl chloride	2	13	5	6

SB-127 TWB				
ANALYTE	DW	GSI	Exceedance	Sampling Event
Arsenic dissolved	10	10	38	6
Lead dissolved	4	44	19	6
Ethylbenzene	74	18	31	6

MW-107S				
ANALYTE	DW	GSI	Exceedance	Sampling Event
Arsenic	10	10	20,15,68	5,6,10
Copper dissolved	1000	20	110	5
Copper	1000	20	29,70	8,10
Lead	4	44	30,17,6,16,8	5,6,8,10
Selenium	50	5	10	5
Zinc dissolved	2400	260	60	5
Trichloroethylene	5	200	6,9	2,3
Chromium	100	160	1510	7

MW-106SR				
ANALYTE	DW	GSI	Exceedance	Sampling Event

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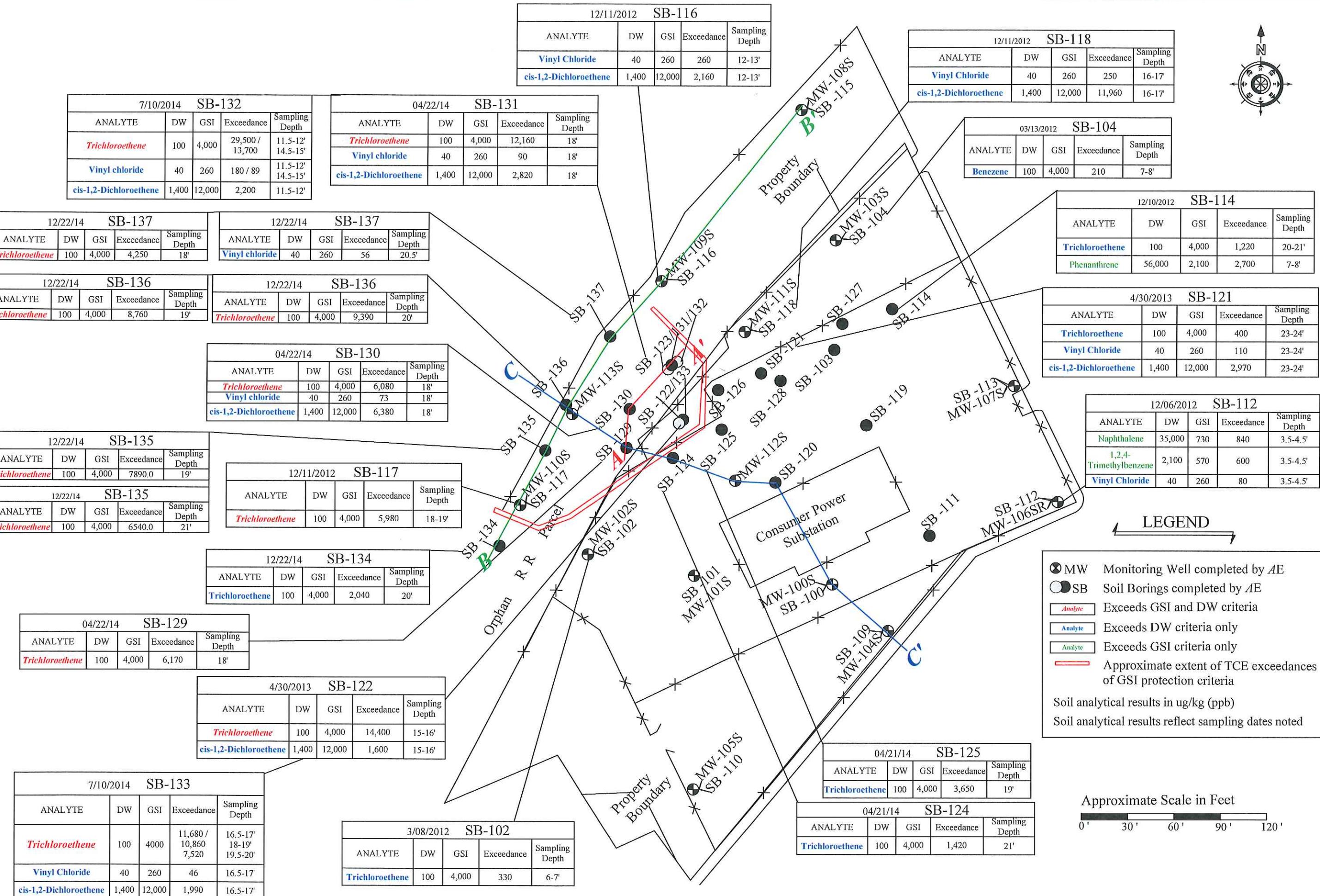
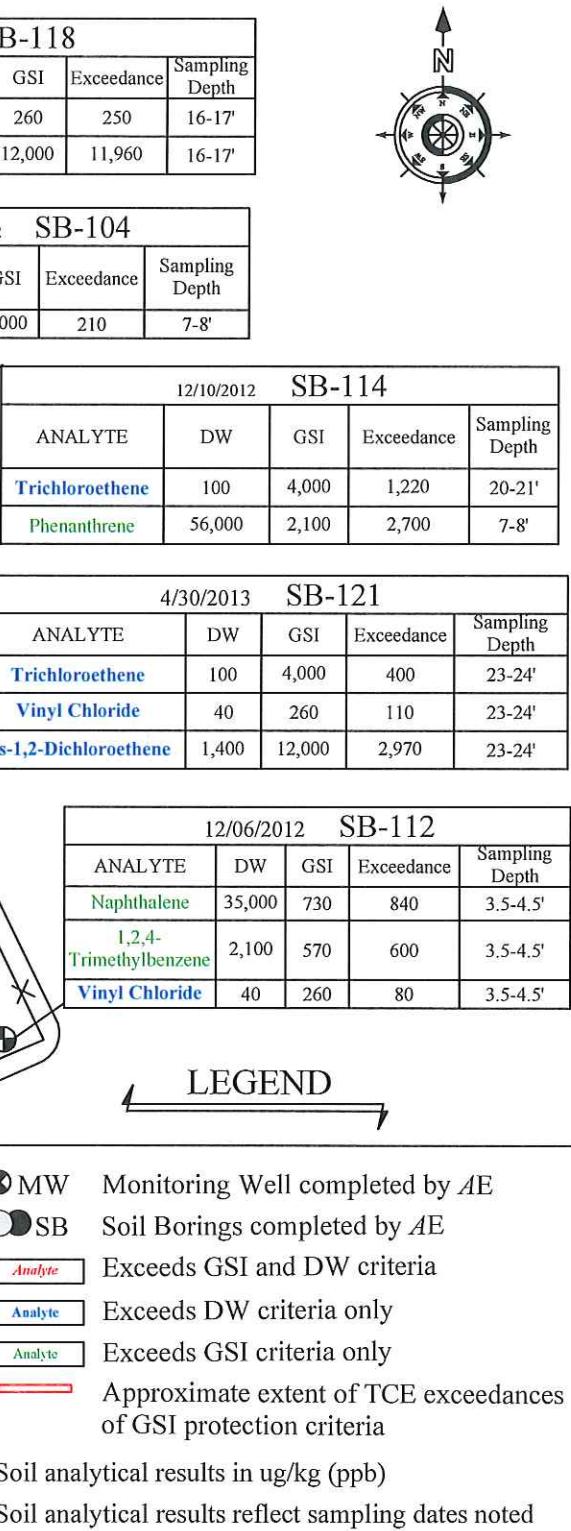
## Applied EcoSystems, Inc.

Environmental Management, Consulting & Field Services  
G-4300 South Saginaw Street, Burton, Michigan 48529  
Phone: 810.715.2525; Fax: 810.715.2526

## Summary of Drinking Water and GSI Exceedances in Soil

2012 - 2014  
Racer Flint West - 12990  
Flint West Industrial Land, Flint, MI

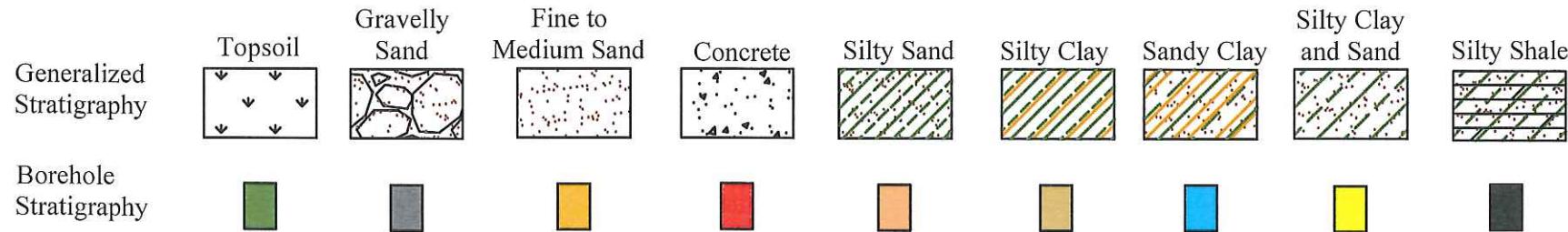
PROJECT:	DATE::	SCALE:
FIGURE:	2012 - 2014	As Shown
11-4317-102	2012 - 2014	5



## ATTACHMENTS

ATTACHMENT #1: CROSS SECTION DIAGRAMS

## Cross Section Diagram Key



DW      Residential Drinking Water Generic Cleanup Criteria

⊕      Monitoring Wells Installed by AE

GSI      Groundwater Surface Water Interface Generic Cleanup Criteria  
GSI criteria calculation based on 257ppm total hardness in the Flint River

Soil and Groundwater analytical results are expressed as defined below;



Dissolved arsenic exceedance above DW and GSI GRCCs



Dissolved copper exceedance above GSI GRCCs



Dissolved lead exceedance above DW GRCCs



Dissolved chromium exceedance above DW GRCCs



Dissolved zinc exceedance above GSI GRCCs



Dissolved selenium exceedance above GSI GRCCs



TCE exceedance above DW GRCCs



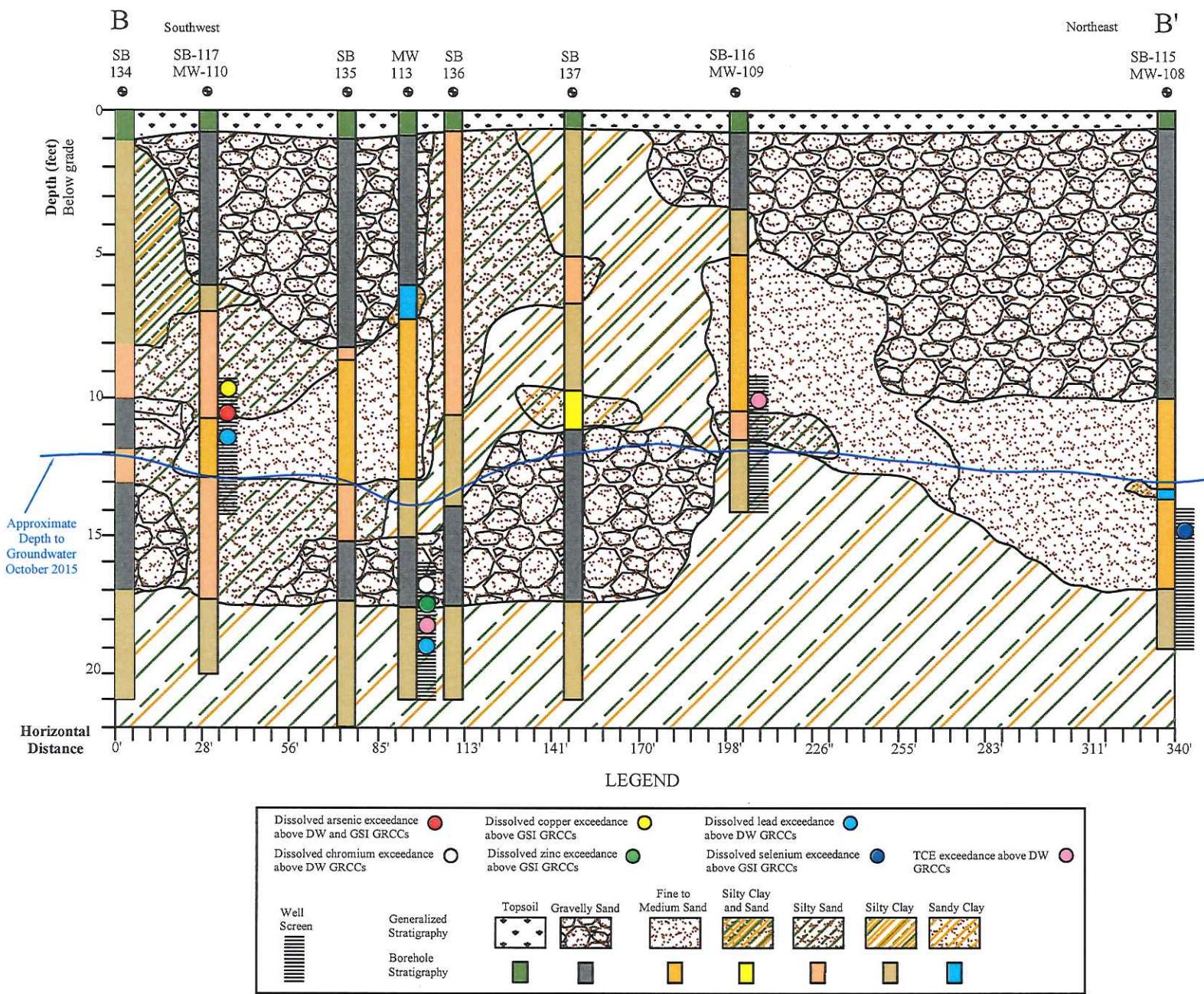
TCE exceedance above DW and GSI GRCCs



Dissolved selenium exceedance above DW and GSI GRCCs

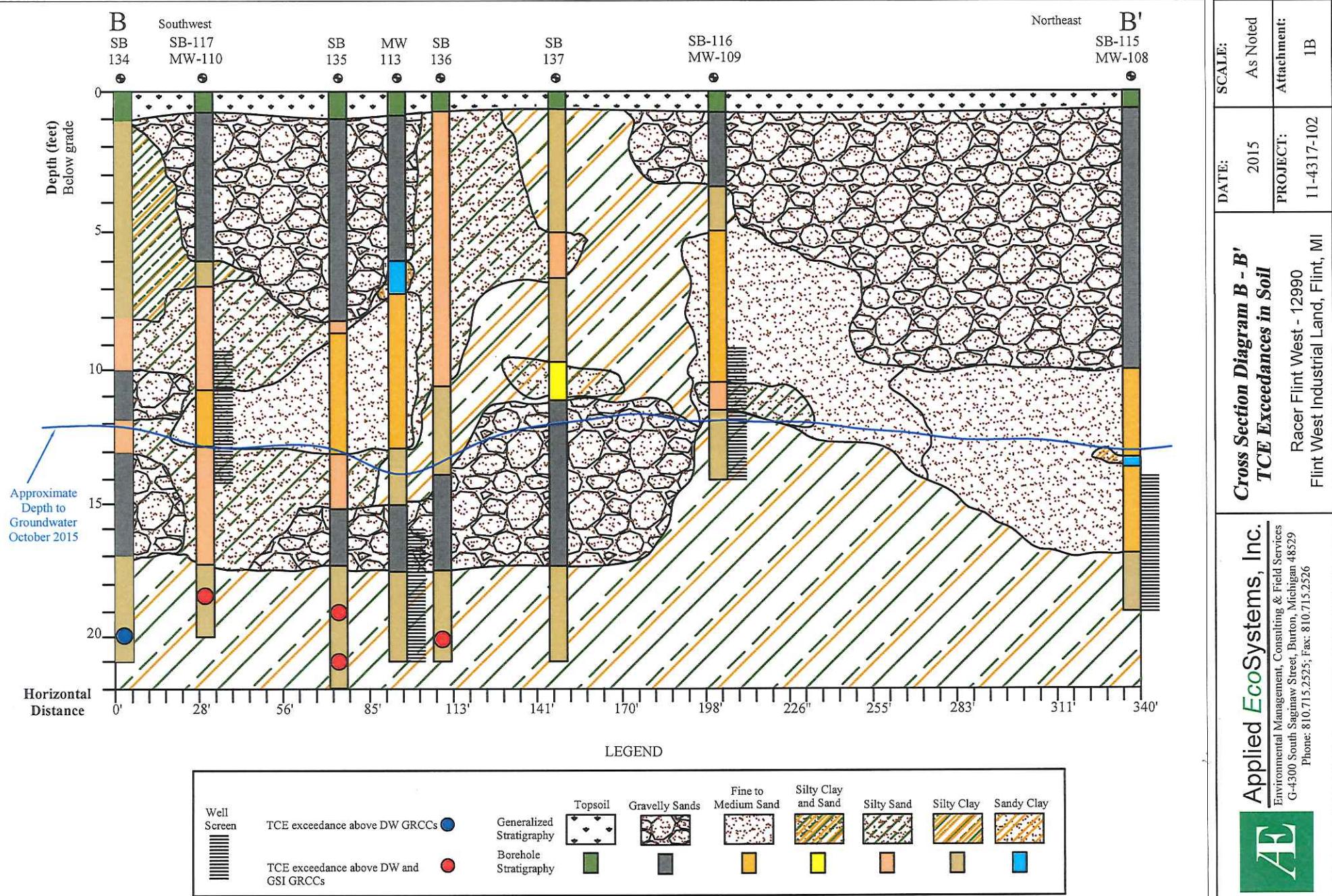


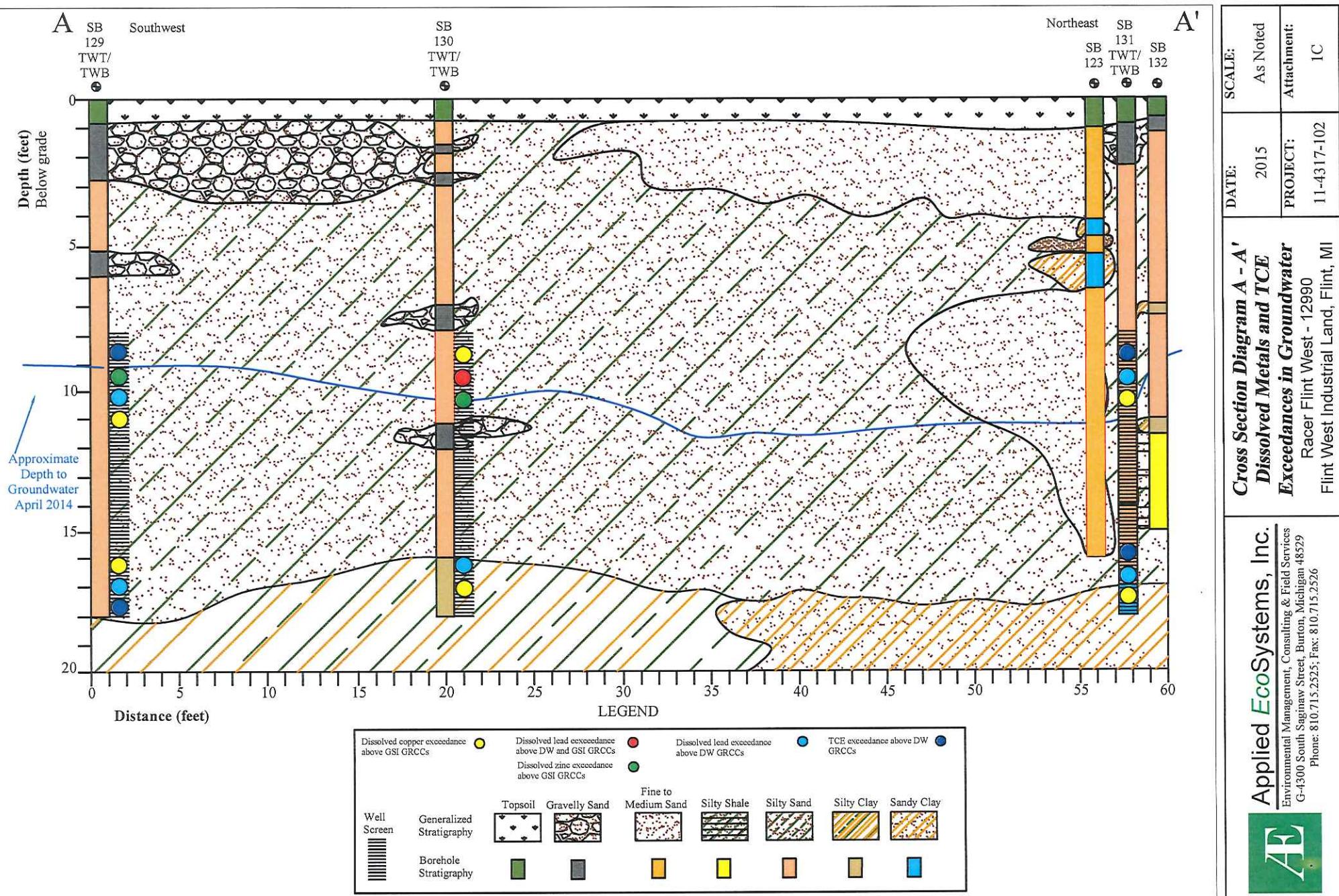
<b>Cross Section Diagram Key</b>	DATE:	SCALE:
	2016	None
PROJECT:	Attachment:	
Racer Flint West - 12990	11-4317-102	1
Flint West Industrial Land, Flint, MI		

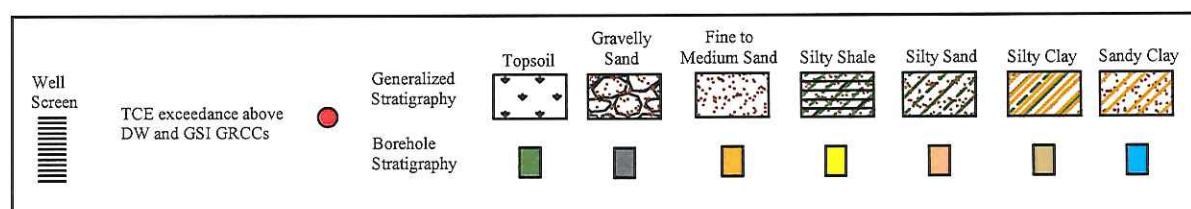
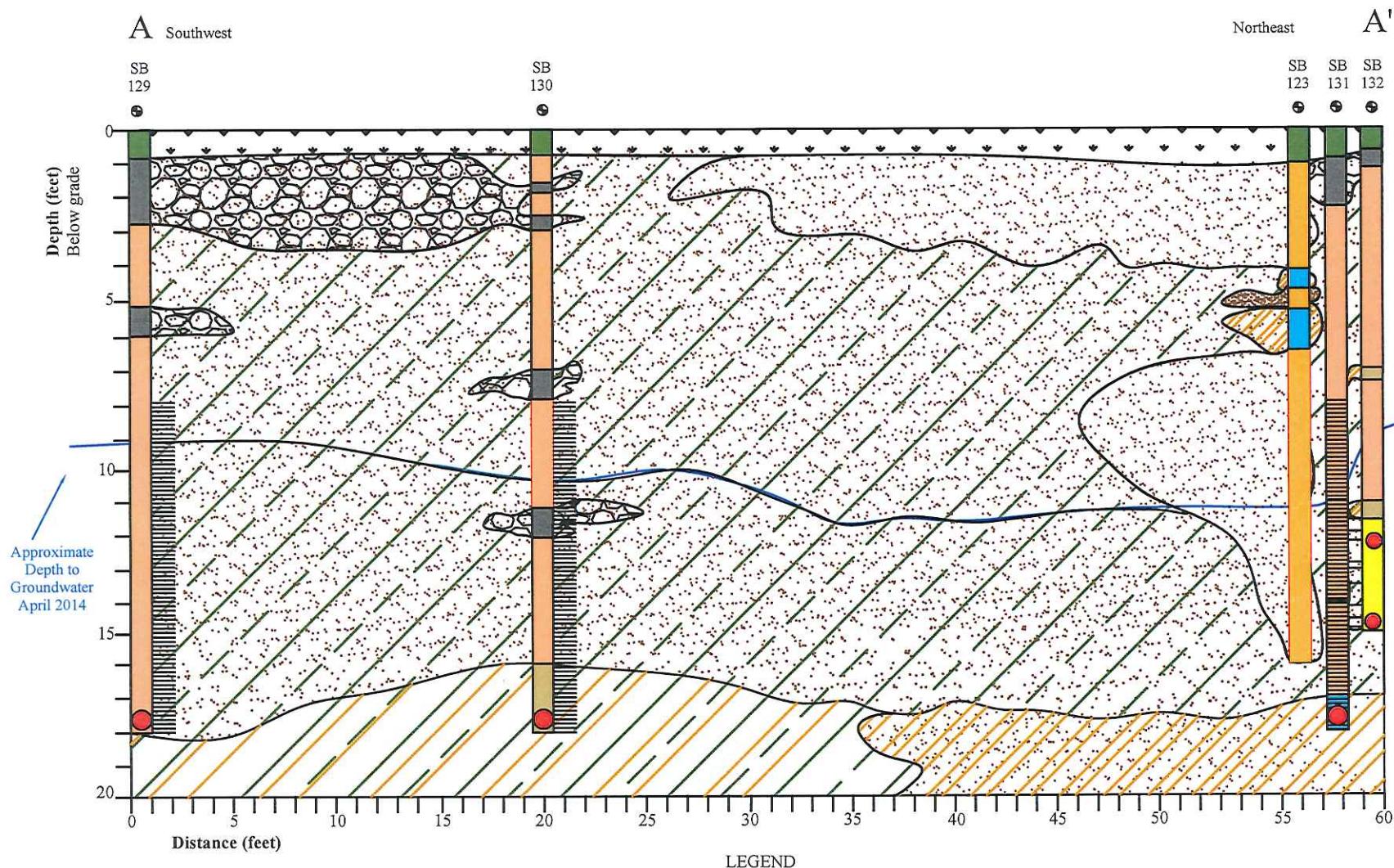


<b>Applied EcoSystems, Inc.</b> Environmental Management, Consulting & Field Services G-4300 South Saginaw Street, Button, Michigan 48529 Phone: 810.715.2525, Fax: 810.715.2526	<b>Cross Section Diagram B - B'</b> <b>Dissolved Metals and TCE Exceedances in Groundwater</b>	DATE: 2015	SCALE: As Noted
	PROJECT: Racer Flint West - 129990 Flint West Industrial Land, Flint, MI	Attachment: 1A	









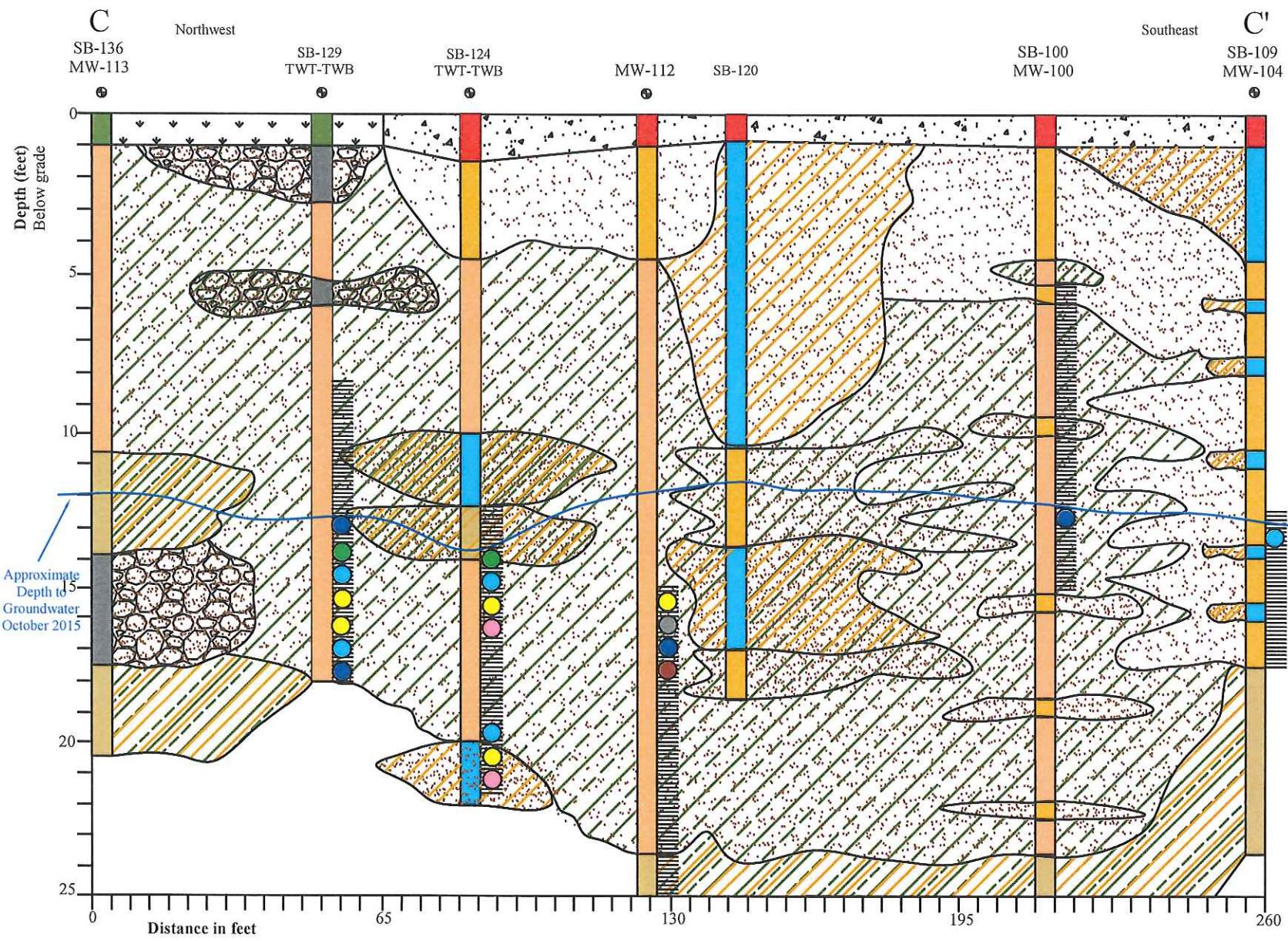
DATE: 2015	SCALE: As Noted
PROJECT: 11-4317-102	Attachment: 1D

**Cross Section Diagram A - A'**  
**TCE Exceedances in Soil**

Racer Flint West - 12990  
Flint West Industrial Land, Flint, MI

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G-4300 South Saginaw Street, Burton, Michigan 48529  
Phone: 810.715.2525; Fax: 810.715.2526

**AE**



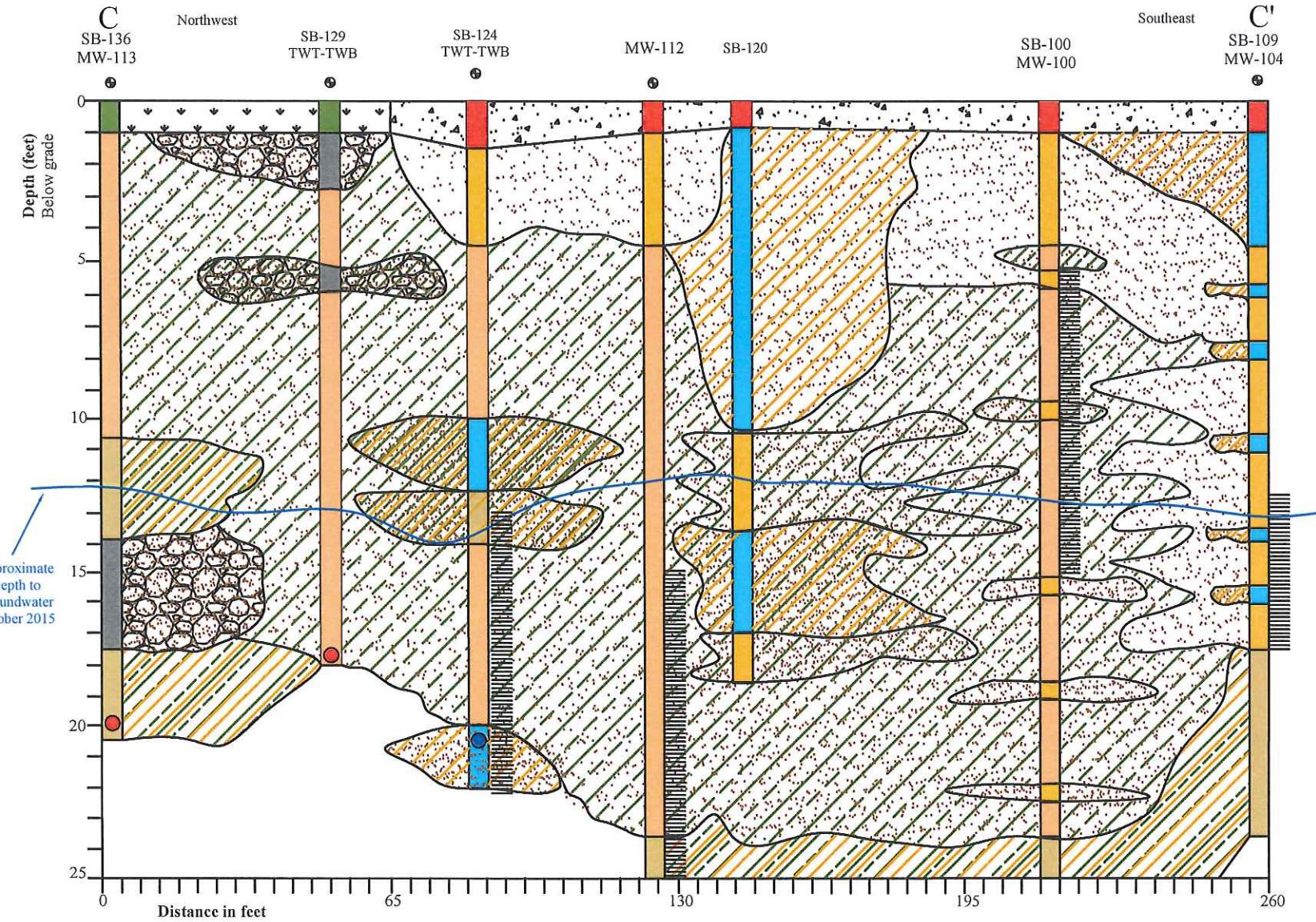
**Applied EcoSystems, Inc.**

Environmental Management, Consulting & Field Services  
G-4300 South Saginaw Street, Burton, Michigan 48329  
Phone: 810.715.2525; Fax: 810.715.2526



**Cross Section Diagram C - C'  
Dissolved Metals and TCE  
Exceedances in Groundwater**  
Racer Flint West - 12990  
Flint West Industrial Land, Flint, MI

DATE:	2016	SCALE:	As Noted
PROJECT:	Racer Flint West - 12990	Attachment:	1E
	11-4317-102		



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 Environmental Management, Consulting & Field Services  
 G-4300 South Saginaw Street, Burton, Michigan 48529  
 Phone: 810.715.2525; Fax: 810.715.2526

**Cross Section Diagram C - C'**  
**TCE Exceedances in Soil**  
 Racer Flint West - 12990  
 Flint West Industrial Land, Flint, MI

DATE:	2016	SCALE:	As Noted
PROJECT:	11-4317-102	Attachment:	1F

ATTACHMENT #2: GROUNDWATER ANALYTICAL TABLES

GROUNDWATER ANALYTICAL DATA  
RACER - Eject West #12800

	Sample ID	MW-100S	MW-101S	MW-102S	MW-103S	MW-104S	MW-105SR	MW-106S	MW-107S	MW-108S	MW-109S	MW-110S	MW-111S	MW-112S	MW-113S	SB124-TWT	SB125-TWT	SB127-TWT	SB129-TWT	SB130-TWT	SB131-TWT	SB124-TWB	SB125-TWB	SB127-TWB	SB129-TWB	SB130-TWB	SB131-TWB	Dup1	Dup2	Dup3			
	Date Collected		4/3/14	4/3/14	3/29/14	4/3/14	4/3/14	4/3/14	3/29/14	3/29/14	3/29/14	3/29/14	3/29/14	3/29/14	3/29/14	4/22/14	4/22/14	4/22/14	4/22/14	4/22/14	4/22/14	4/22/14	4/22/14	4/22/14	4/22/14	4/22/14	4/22/14	4/22/14	4/22/14	4/22/14			
ANALYTE (ug/L)	DW	GSI																															
Arsenic (dissolved)	10.00	10.00				11.00										21.00	19.00	17.00	57.00	4.00	3.00	2.00	3.00	30.00	38.00								
Chromium (dissolved)	100.00	160.00	G			35.00			22.00	18.00						7.00	12.00	128.00	13.00		147.00	64.00	25.00	16.00		17.00	89.00	19.00	33.00	14.00			
Copper (dissolved)	1,000.00	20.00	G													28.00		21.00		5.00	22.00	140.00	28.00	42.00		12.00	24.00	94.00	144.00				
Lead (dissolved)	4.00	28.00	G													24.00		29.00		5.00	23.00	208.00	16.00	47.00	1.00	19.00	11.00	31.00	14.00				
Selenium (dissolved)	50.00	5.00														6.00	5.00	5.00		12.00		4.00		12.00				5.00	3.00				
Zinc (dissolved)	240.00	26.00	G			97.00			23.00	5.00		62.00	5.00	16.00	18.00	81.00	21.00	9.00	24.00	311.00	167.00	82.00	323.00	326.00	103.00	241.00	400.00	166.00	68.00	241.00	191.00	12.00	

	Sample ID	MW-100S	MW-101S	MW-102S	MW-103S	MW-104S	MW-105SR	MW-106S	MW-107S	MW-108S	MW-109S	MW-110S	MW-111S	MW-112S	MW-113S	SB124-TWT	SB125-TWT	SB127-TWT	SB129-TWT	SB130-TWT	SB131-TWT	SB124-TWB	SB125-TWB	SB127-TWB	SB129-TWB	SB130-TWB	SB131-TWB	Dup1	Dup2	Dup3			
	Date Collected																																
ANALYTE (ug/L)	DW	GSI																															
Acetone	730	1,700		1,13	2,36		0.88	1.82	3.58	3.82		1.22	2.11	0.72	5.17	0.93	5.7			9.1	5.7			10.3	66	25.8	5.9	5.8	1.06				
Methyl iodide	NC	NC																															
Carbon disulfide	800	NC																										0.86	0.4				
2 Butanone (MEK)	13,000	2,200		0.73	0.86		0.41	0.83	0.78	0.94					2.98										11.6	8.6							
Chloromethane	260	NC																										0.33	0.61				
Vinyl Chloride	2.0	13									0.64		18		4	6	0.45		5			2					2		2	4			
Chloroethane	430	1,100													0.6	1.13			1.07									0.77					
trichlorofluoromethane	2,600	NA																															
1,1-Dichloroethene	7.0	130													4	1	0.40			1								0.81		1			
Methylene Chloride	5.0	1,500																															
trans-1,2-Dichloroethene	100	1,500													0.92	0.24	0.23												0.28	0.26			
1,1-Dichloroethane	880	740													0.21	3.00	2	0.69	2.00			3.00						2.00	2.00				
cis-1,2-Dichloroethene	70	620													3	59	46	2	26			0.042	0.69	2	21		0.36	0.93	3.00	21.00	43.00		
Tetrahydrofuran	95	11,000																															
Chloroform	80	350							3.00						0.35	0.35	0.29							0.042						0.41	0.29		
1,1,1-Trichloroethane	200	89													0.48	0.75													0.71	0.73			
4-Methyl-2-pentanone (M)	1800	1000000000															0.67			0.390						0.590	2.190						
2-Hexanone	1000	1000000000																0.750								0.210	2.170	4.570					
Carbon tetrachloride	5.0	45																															
Benzene	5.0	200															2														0.16	0.23	
Bromodichloromethane	80.0	NC							0.89																								
Trichloroethylene	5.0	200		3	2										4	102	92	3	23			8	3	81		0.55			8	5	78	86	
Toluene	790	270													0.35	0.63					0.23	0.39	0.20			0.38	0.30	1.00	0.35	0.24	0.44		
Tetrachloroethylene	5.0	60																													0.17		
Chlorobenzene	100	25																															
Styrene	100	80																															
Ethylbenzene	74	18																														0.11	
Total Xylenes	280	41																													0.79		
1,2-Dichlorobenzene	600	13																															
1,2,4-Trimethylbenzene	63	17																													0.22	0.31	
1,2,3-Trimethylbenzene	NC	NC													0.07	0.07													0.20	0.18			
Naphthalene	520	11																													0.75	1.68	0.55
2-MethylNaphthalene	260	19																													0.47	0.88	0.47

**NOTES:**

Blank cells indicate no detectable concentrations

Exceeds residential and non-residential DW criteria

Exceeds GSI criteria

Exceeds both DW and GSI criteria

Compound also found in associated method bla

Insufficient data to develop criterion/no criterion

GROUNDWATER ANALYTICAL DATA  
RACER - Flint West #12990

	Sample ID		MW-100S	MW-101S	MW-102S	MW-103S	MW-104S	MW-105SR	MW-106S	MW-107S	MW-108S	MW-109S	MW-110S	MW-111S	MW-112S	MW-113S	Dup1	Dup2	Dup3
	Date Collected		6/25/14	6/25/14	6/25/14	6/26/14	6/25/14	6/26/14	6/25/14	6/25/14	6/26/14	6/26/14	6/26/14	6/26/14	6/25/14	6/26/14			
ANALYTE (ug/L)	DW	GSI																	
Arsenic (dissolved)	10.00	10.00														19			
Chromium (dissolved)	100.00	160.00	G			51											152		
Copper (dissolved)	1,000.00	20.00	G														4		
Lead (dissolved)	4.00	28.00	G					25	22	23					15		5		
Selenium (dissolved)	50.00	5.00				66			8			6							
Zinc (dissolved)	2,400.00	26.00	G	5	11		10				5	7				8	13		

	Sample ID		MW-100S	MW-101S	MW-102S	MW-103S	MW-104S	MW-105SR	MW-106S	MW-107S	MW-108S	MW-109S	MW-110S	MW-111S	MW-112S	MW-113S	Dup1	Dup2	Dup3
	Date Collected		6/25/14	6/25/14	6/25/14	6/26/14	6/25/14	6/26/14	6/25/14	6/25/14	6/26/14	6/26/14	6/26/14	6/26/14	6/25/14	6/26/14			
ANALYTE (ug/L)	DW	GSI																	
Acetone	730	1,700		1.74	1.45	2.04	2.67	1.55	1.86	1.59	2.82	1.32	1.47	1.29	1.48	4.93	1.32		
Methyl iodide	NC	NC																	
Carbon disulfide	800	NC														0.42	0.36		
2 Butanone (MEK)	13,000	2,200										0.4	0.65	0.29	0.29	1.99			
Chloromethane	260	NC		0.32					0.34								0.29		
Vinyl Chloride	2.0	13													10		21	2	
Chloroethane	430	1,100															2.9		
trichlorofluoromethane	2,600	NA																	
1,1-Dichloroethene	7.0	130													4		2.00	0.39	
Methylene Chloride	5.0	1,500																	
trans-1,2-Dichloroethene	100	1,500													0.7		0.64	0.24	
1,1-Dichloroethane	880	740															1.00	3.00	
cis-1,2-Dichloroethene	70	620		0.62											3		7	59	
Tetrahydrofuran	95	11,000													70.0				
Chloroform	80	350						5.00		0.22		0.5	0.37				0.320		
1,1,1-Trichloroethane	200	89													0.50			1.00	
4-Methyl-2-pentanone (M)	1800	1000000000															0.83		
2-Hexanone	1000	1000000000															1.46		
Carbontetrachloride	5.0	45													2				
Benzene	5.0	200																	
Bromodichloromethane	80.0	NC					0.82												
Trichloroethene	5.0	200		5	1	3			26		2			104		2	24	69	
Toluene	790	270																	
Tetrachloroethene	5.0	60																	
Chlorobenzene	100	25																	
Styrene	100	80																	
Ethylbenzene	74	18																	
Total Xylenes	280	41																	
1,2 -Dichlorobenzene	600	13																	
1,2,4-Trimethylbenzene	63	17																	
1,2,3-Trimethylbenzene	NC	NC																	
Naphthalene	520	11																	
2-Methylnaphthalene	260	19																	

NOTES:

X	Blank cells indicate no detectable concentrations
X	Exceeds residential and non-residential DW criteria
X	Exceeds GSI criteria
X	Exceeds both DW and GSI criteria
X	Compound also found in associated method blank, suggesting a laboratory artifact.
NC	Insufficient data to develop criterion/no criterion
G	Groundwater to Surface Water Interface Criteria - calculated based on 257ppm total hardness in the Flint River

GROUNDWATER ANALYTICAL DATA  
RACER - Flint West #12990

	Sample ID	MW-100S	MW-101S	MW-102S	MW-103S	MW-104S	MW-105S	MW-106SR	MW-107S	MW-108S	MW-109S	MW-110S	MW-111S	MW-112S	MW-113S	Dup1	Dup2
ANALYTE (ug/L)	DW	GSI															
Arsenic (dissolved)	10.00	10.00	na														
Arsenic	10.00	10.00	29	4	12	na	12	42	13	2	5	16	17	20	400	11.00	5.00
Cadmium (dissolved)	5.00	4.50	GX	na	na	na	na	na	na	na	na	na	na	na	na	na	na
Cadmium	5.00	4.50	GX	6.90	na	na	na	na	na	na	na	na	na	na	na	na	na
Chromium (dissolved)	100.00	1,600.00	G	na	na	7	na	9	6	15			7	7			10
Chromium	100.00	1,600.00	GX	na	na	62	na	17,800	42,600	68,000	14	19	16	69	237	140	822
Copper (dissolved)	1,000.00	20.00	G	na			na									14,000	11
Copper	1,000.00	20.00	GX	230	32	22	na	716	802	402	29	31	26	736	22	502	300
Lead (dissolved)	4.00	44.00	G	na			na									583	21
Lead	4.00	44.00	GX	70	21	14	na	6	29	44	6	15	32	249	20	354	289
Selenium (dissolved)	50.00	5.00	na				na		14	5							
Selenium	50.00	5.00					na		16	5							6
Zinc (dissolved)	2,400.00	260.00	G	na	66		na	28		15	9	13	11	25	34	9	23
Zinc	2,400.00	260.00	GX	493	74	33	na	29	52	210	27	222	47	556	36	920	504
	Sample ID	MW-100S	MW-101S	MW-102S	MW-103S	MW-104S	MW-105S	MW-106SR	MW-107S	MW-108S	MW-109S	MW-110S	MW-111S	MW-112S	MW-113S	Dup1	Dup2
ANALYTE (ug/L)	DW	GSI															
Acetone	730	1,700		1.83	2.77		na									42	
Methyl iodide	NC	NC					na										
Carbon disulfide	800	NC	0.29			na	0.70										
2 Butanone (MEK)	13,000	2,200		0.55		na										24	
Chloromethane	260	NC				na	0.27	0.35		0.33		0.53	0.58	0.88		0.48	0.58
Vinyl Chloride	2.0	13				na			0.58		12			3			
Chloroethane	430	1,100				na										0.88	
trichlorofluoromethane	2,600	NA				na											
1,1-Dichloroethene	7.0	130				na									5		
Methylene Chloride	5.0	1,500				na											
trans-1,2-Dichloroethene	100	1,500				na								0.9			
1,1-Dichloroethane	880	740				na			0.71		1			0.76	0.47		
cis-1,2-Dichloroethene	70	620		1		na			2	0.57	45		1	3	9		0.56
Tetrahydrofuran	95	11,000				na										3	2
Chloroform	80	350				na	3			2	0.18						
1,1,1-Trichloroethane	200	89				na					0.37					0.29	
4-Methyl-2-pentanone (MIBK)	1800	1000000000				na										3.88	
2-Hexanone	1000	1000000000				na										12	
Carbontetrachloride	5.0	45				na				2							2
Benzene	5.0	200				na											
Bromodichloromethane	80.0	NC				na	0.54										0.46
Trichloroethene	5.0	200		2	4	0.36	na			5	160		7	61	0.3		
Toluene	790	270				na									0.22	0.51	
Tetrachloroethene	5.0	60			0.23	na		73			0.2					0.20	
Chlorobenzene	100	25				na											
Styrene	100	80				na											
Ethylbenzene	74	18				na										0.17	
Total Xylenes	280	41				na											
1,2-Dichlorobenzene	600	13				na											
1,2,4-Trimethylbenzene	63	17				na											
1,2,3-Trimethylbenzene	NC	NC				na											
Naphthalene	520	11				na											
2-Methylnaphthalene	260	19				na											

NOTES:

X	Blank cells indicate no detectable concentrations
X	Exceeds DW criteria
X	Exceeds GSI criteria
X	Exceeds both DW and GSI criteria
X	Compound also found in associated method blank, suggesting a laboratory artifact.
NC	Insufficient data to develop criterion/no criterion
G	Groundwater to Surface Water Interface Criteria - calculated based on 257ppm total hardness in the Flint River
na	Sample not analyzed for this constituent

GROUNDWATER ANALYTICAL DATA  
RACER - Flint West #12990

	Sample ID		MW-100S	MW-101S	MW-102S	MW-103S	MW-104S	MW-105SR	MW-106S	MW-107S	MW-108S	MW-109S	MW-110S	MW-111S	MW-112S	MW-113S	Dup1	Dup2	Dup3
	Date Collected		DRY	4/28/15	4/28/15	4/30/15	4/28/15	4/28/15	4/28/15	4/28/15	4/30/15	4/30/15	4/30/15	4/30/15	4/28/15	4/30/15	4/28/15	4/30/15	
ANALYTE (mg/L)	DW	GSI																	
Arsenic (dissolved)	10	10					6									16		6	
Arsenic	10	10			4		23			5				2	6	277	6	20	
Chromium (dissolved)	100	160	G			22		5	8									10	
Chromium	100	160	G		17	24		1590	829	58300				29	9	73	16		
Copper (dissolved)	1000	20	G																
Copper	1000	20	G		31	9		40	13	306					14	12			
Lead (dissolved)	4	44	G																
Lead	4	44	G		24					26					9	11			
Selenium (dissolved)	50	5							9										
Selenium	50	5							9										
Zinc (dissolved)	2400	260	G		9		8		120		6		9	39	22	11			
Zinc	2400	260	G		9		8		133		6		9	39	22	11			

	Sample ID		MW-100S	MW-101S	MW-102S	MW-103S	MW-104S	MW-105SR	MW-106S	MW-107S	MW-108S	MW-109S	MW-110S	MW-111S	MW-112S	MW-113S	Dup1	Dup2	Dup3
	Date Collected		DRY	4/28/15	4/28/15	4/30/15	4/28/15	4/28/15	4/28/15	4/28/15	4/30/15	4/30/15	4/30/15	4/30/15	4/28/15	4/30/15	4/28/15	4/30/15	
ANALYTE (ug/L)	DW	GSI																	
Acetone	730	1,700														10			
Methyl iodide	NC	NC																	
Carbon disulfide	800	NC									0.17					0.16			
2 Butanone (MEK)	13,000	2,200														6.6			
Chloromethane	260	NC		4	6	2	6	5	5	4	4	4	5	5	4	2	3		
Vinyl Chloride	2.0	13								0.6		21		4	4	2			
Chloroethane	430	1,100				0.7									5		0.77		
trichlorofluoromethane	2,600	NA																	
1,1-Dichloroethene	7.0	130											4		0.88				
Methylene Chloride	5.0	1,500																	
trans-1,2-Dichloroethene	100	1,500											1		0.99	0.26			
1,1-Dichloroethane	880	740								0.56		2		2	0.52	3			
cis-1,2-Dichloroethene	70	620								2		51		48	0.66	19			
Tetrahydrofuran	95	11,000																	
Chloroform	80	350					1		0.7		1	0.28		0.29	0.21	0.19			
1,1,1-Trichloroethane	200	89										0.51		0.36					
2-Hexanone	1000	1E+09													3			0.25	
Benzene	5.0	200		0.26		0.23													
Trichloroethene	5.0	200		2	0.51					2		138		78	0.62	36			
Tetrachloroethene	5.0	60								69									
Chlorobenzene	100	25															0.17		
Styrene	100	80				0.15											0.21		
Ethylbenzene	?	?																	
Total Xylenes	280	41																	
1,2 -Dichlorobenzene	?	?																	
1,2,4-Trimethylbenzene	63	17																	
1,2,3-Trimethylbenzene	NC	NC																	
Naphthalene	520	11																	
2-Methylnaphthalene	260	19																	

NOTES:

X	Blank cells indicate no detectable concentrations
X	Exceeds DW criteria
X	Exceeds GSI criteria
X	Exceeds both DW and GSI criteria
X	Compound also found in associated method blank, suggesting a laboratory artifact.
NC	Insufficient data to develop criterion/no criterion
G	Groundwater to Surface Water Interface Criteria - calculated based on 257ppm total hardness in the Flint River

GROUNDWATER ANALYTICAL DATA  
RACER - Flint West #12990

	Sample ID			MW-100S	MW-101S	MW-102S	MW-103S	MW-104S	MW-105S	MW-106SR	MW-107S	MW-108S	MW-109S	MW-110S	MW-111S	MW-112S	MW-113S	Trip Blank	Field Blank
	Date Collected			DRY	10/26/15	10/26/15	10/27/15	10/26/15	10/26/15	10/26/15	10/26/15	10/27/15	10/27/15	10/27/15	10/27/15	10/26/15	10/27/15	10/26/15	10/26/15
ANALYTE (ug/L)	DW	GSI																	
Arsenic (dissolved)	10	10		DRY			4							3.31	0.51	4	1.09		
Arsenic	10	10		DRY	4.3	20	140	13.6	70	53	68	18.4	40	30	60	235	30		
Chromium (dissolved)	100	160	G	DRY	2.39	7.1	0.51		23	128		0.67	0.5	0.66	4.35	0.57	0.76		
Chromium	100	160	G	DRY	49.1	90	120	10,000	16.2	446,000	29.5	70	70	16.4	1,140	150	220		
Copper (dissolved)	1000	20	G	DRY				1.04	1.89	1.5	4.88	2.28	7.11	12	2.85	115	3.13		
Copper	1000	20	G	DRY	14.42	37.44	160	210	820	2,760	70	90	90	70	200	80			
Lead (dissolved)	4	44	G	DRY				1.57		1.11						1.27			
Lead	4	44	G	DRY	7.61	20.45	80	29.78	180	300	16.86	90	70	20.3	40	100	50		
Selenium (dissolved)	50	5		DRY			1.3		1.9	9.9	4.6	2.2	1.4	2	1.2		102		
Selenium	50	5		DRY	12	16			15	17						16			
Zinc (dissolved)	2400	260	G	DRY	35	111	12	42	24	22	17	16	15	19	34	101	84		
Zinc	2400	260	G	DRY	40.3	100	410	160	800	1,600	110	350	230	70	140	450	170		
	Sample ID			MW-100S	MW-101S	MW-102S	MW-103S	MW-104S	MW-105S	MW-106SR	MW-107S	MW-108S	MW-109S	MW-110S	MW-111S	MW-112S	MW-113S	Trip Blank	Field Blank
	Date Collected			DRY	10/26/15	10/26/15	10/27/15	10/26/15	10/26/15	10/26/15	10/26/15	10/27/15	10/27/15	10/27/15	10/27/15	10/26/15	10/27/15	10/26/15	10/26/15
ANALYTE (ug/L)	DW	GSI																	
Acetone	730	1,700		DRY															
Methyl iodide	NC	NC		DRY															
Carbon disulfide	800	NC		DRY															
2 Butanone (MEK)	13,000	2,200		DRY			1.74										0.82	0.79	
Chloromethane	260	NC		DRY															
Vinyl Chloride	2.0	13		DRY										20		97			
Chloroethane	430	1,100		DRY															
trichlorofluoromethane	2,600	NA		DRY															
1,1-Dichloroethene	7.0	130		DRY										5.3		4	0.76		
Methylene Chloride	5.0	1,500		DRY															
trans-1,2-Dichloroethene	100	1,500		DRY												1	0.27		
1,1-Dichloroethane	880	740		DRY										3.3		2	1	1	
cis-1,2-Dichloroethene	70	620		DRY										0.42	0.66	80	42	1	23
Tetrahydrofuran	95	11,000		DRY															
Chloroform	80	350		DRY				2						3					
1,1,1-Trichloroethane	200	89		DRY												0.33		0.45	
4-Methyl-2-pentanone (MIBK)	1800	1E+09		DRY													1.09		
2-Hexanone	1000	1E+09		DRY													1.64		
Carbontetrachloride	5.0	45		DRY										3					
Benzene	5.0	200		DRY			0.21		0.26	0.22							0.2		
Bromodichloromethane	80.0	NC		DRY					0.65										
Trichloroethene	5.0	200		DRY	3	0.68		0.68			2	0.33	200		92		67		
Toluene	790	270		DRY						0.58	0.4	0.31					0.37		
Tetrachloroethene	5.0	60		DRY						58									
Chlorobenzene	100	25		DRY															
Styrene	100	80		DRY															
Ethylbenzene	74	18		DRY															
Total Xylenes	280	41		DRY															
1,2 -Dichlorobenzene	600	13		DRY															
1,2,4-Trimethylbenzene	63	17		DRY															
1,2,3-Trimethylbenzene	NC	NC		DRY															
Naphthalene	520	11		DRY															
2-Methylnaphthalene	260	19		DRY															

NOTES:

X	Blank cells indicate no detectable concentrations
X	Exceeds DW criteria
X	Exceeds GSI criteria
X	Exceeds both DW and GSI criteria
X	Compound also found in associated method blank, suggesting a laboratory artifact.
NC	Insufficient data to develop criterion/no criterion
G	Groundwater to Surface Water Interface Criteria - calculated based on 257ppm total hardness in the Flint River

ATTACHMENT #3: GROUNDWATER ANALYTICAL LABORATORY REPORT



# Analytical Laboratory Report

Report ID: S69167.01(01)

Generated on 11/11/2015

## Report to

Attention: Jesse Anderson  
Applied Ecosystems  
G4300 S. Saginaw St.  
Burton, MI 48529

Phone: 248-688-2475 FAX: 810-715-2526  
Email: janderson@appliedecosystems.com

Additional Contacts: Mike Smith

## Report produced by

Merit Laboratories, Inc.  
2680 East Lansing Drive  
East Lansing, MI 48823

Phone: (517) 332-0167 FAX: (517) 332-6333

Contacts for report questions:  
Kevin George (kgeorge@meritlabs.com)  
Barbara Ball (bball@meritlabs.com)

## Report Summary

Lab Sample ID(s): S69167.01-S69167.09

Project: RACER Flint West 12990

Collected Date: 10/27/2015

Submitted Date/Time: 10/28/2015 11:25

Sampled by: JAnderson/TWatson

P.O. #: PO219269

## Table of Contents

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Report Narrative (Page 2)  
Laboratory Certifications (Page 3)  
Qualifier Descriptions (Page 3)  
Glossary of Abbreviations (Page 3)  
Method Summary (Page 4)  
Sample Summary (Page 5)

A handwritten signature in black ink, appearing to read "Maya Murshak".

Maya Murshak  
Technical Director



# Analytical Laboratory Report

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## General Report Notes

Results relate only to items tested as received by laboratory.

Methods may be modified for improved performance.

Results reported on a dry weight basis where applicable.

'Not detected' indicates that parameter was not found at a level equal to or greater than the reporting limit (RL).

40 CFR Part 136 Table II Required Containers, Preservation Techniques and Holding Times for the Clean Water Act specify that samples for acrolein and acrylonitrile need to be preserved at a pH in the range of 4 to 5 or if not preserved, analyzed within 3 days of sampling.

QA/QC corresponding to this analytical report is a separate document with the same Merit ID reference and is available upon request.

Full accreditation certificates are available upon request.

Samples are held by the lab for 30 days from the final report date unless a written request to hold longer is provided by the client.

Report shall not be reproduced except in full, without the written approval of Merit Laboratories, Inc.

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## Report Narrative

There is no additional narrative for this analytical report



# Analytical Laboratory Report

## Laboratory Certifications

Authority	Certification ID
Michigan DEQ	#9956
DOD ELAP/ISO 17025	#69699
WBENC	#2005110032
Ohio VAP	#CL0002
Indiana DOH	#C-MI-07
New York NELAC	#11814
North Carolina DENR	#680
North Carolina DOH	#26702

## Qualifier Descriptions

Qualifier	Description
!	Result is outside of stated limit criteria
B	Compound also found in associated method blank
E	Concentration exceeds calibration range
F	Analysis run outside of holding time
G	Estimated result due to extraction run outside of holding time
H	Sample submitted and run outside of holding time
I	Matrix interference with internal standard
J	Estimated value less than reporting limit, but greater than MDL
L	Elevated reporting limit due to low sample amount
M	Result reported to MDL not RDL
O	Analysis performed by outside laboratory. See attached report.
R	Preliminary result
S	Surrogate recovery outside of control limits
T	No correction for total solids
X	Elevated reporting limit due to matrix interference
Y	Elevated reporting limit due to high target concentration
b	Value detected less than reporting limit, but greater than MDL
e	Reported value estimated due to interference
j	Analyte also found in associated method blank
p	Benzo(b)Fluoranthene and Benzo(k)Fluoranthene integrated as one peak.
x	Preserved from bulk sample

## Glossary of Abbreviations

Abbreviation	Description
RL/RDL	Reporting Limit
MDL	Method Detection Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
SW	EPA SW 846 (Soil and Wastewater) Methods
E	EPA Methods
SM	Standard Methods



# Analytical Laboratory Report

## Method Summary

Method	Version
E200.8	EPA Method 200.8 Revision 5.4
N/A	Not Applicable
SM3500-Cr B	Standard Method 3500 Cr B 20th Edition
SW3015A	SW 846 Method 3015A Revision 1 February 2007
SW8260B	SW 846 Method 8260B Revision 2 December 1996



# Analytical Laboratory Report

## Sample Summary (9 samples)

Sample ID	Sample Tag	Matrix	Collected Date/Time
S69167.01	MW 110S	Groundwater	10/27/15 14:30
S69167.02	MW 109S	Groundwater	10/27/15 15:30
S69167.03	MW 108S	Groundwater	10/27/15 16:00
S69167.04	MW 103S	Groundwater	10/27/15 17:00
S69167.05	MW 113S	Groundwater	10/27/15 15:00
S69167.06	MW 111S	Groundwater	10/27/15 16:30
S69167.07	Trip Blank	Water	10/27/15 14:00
S69167.08	Field Blank	Water	10/27/15 14:30
S69167.09	Duplicate	Groundwater	10/27/15 00:01



# Analytical Laboratory Report

Lab Sample ID: S69167.01  
Sample Tag: MW 110S  
Collected Date/Time: 10/27/2015 14:30  
Matrix: Groundwater  
COC Reference: 85301

## Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	125ml Plastic	None	Yes	5.4	IR
1	125ml Plastic	HNO3	Yes	5.4	IR
3	40ml Glass	HCL	Yes	5.4	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Tech	MDL	Flags
<b>Extraction / Prep.</b>								
Metal Digestion	Completed			SW3015A	11/11/15 13:30		CCM	
Metal Digestion	Completed			SW3015A	10/30/15 15:30		CCM	
pH check for VOCs	<2	STD Units		N/A	11/05/15 13:56		ADB	
<b>Inorganics</b>								
Chromium VI, Dissolved	Not detected	mg/L	0.01	SM3500-Cr B	10/28/15 12:40	JKB	0.004	
<b>Metals</b>								
Arsenic, Dissolved	0.00331	mg/L	0.004	E200.8	11/11/15 15:47		CCM 0.00031	b
Arsenic	0.03	mg/L	0.02	E200.8	11/05/15 13:17		CCM 0.0021	
Chromium, Dissolved	0.00066	mg/L	0.010	E200.8	11/11/15 15:47		CCM 0.00036	b
Chromium	0.0164	mg/L	0.05	E200.8	11/05/15 13:17		CCM 0.0010	b
Copper, Dissolved	0.012	mg/L	0.010	E200.8	11/11/15 15:47		CCM 0.00065	
Copper	0.09	mg/L	0.05	E200.8	11/05/15 13:17		CCM 0.00095	
Lead, Dissolved	Not detected	mg/L	0.006	E200.8	11/11/15 15:47		CCM 0.00071	
Lead	0.02031	mg/L	0.03	E200.8	11/05/15 13:17		CCM 0.00045	b
Selenium, Dissolved	0.0012	mg/L	0.010	E200.8	11/11/15 15:47		CCM 0.0012	b
Selenium	Not detected	mg/L	0.05	E200.8	11/05/15 13:17		CCM 0.012	
Zinc, Dissolved	0.019	mg/L	0.010	E200.8	11/11/15 15:47		CCM 0.0017	
Zinc	0.07	mg/L	0.05	E200.8	11/05/15 13:17		CCM 0.0032	
<b>Organics - Volatiles</b>								
<b>Volatile Organics - DEQ List</b>								
Diethyl ether	Not detected	ug/L	10	SW8260B	11/05/15 07:34		LBR 0.50	
Acetone	Not detected	ug/L	50	SW8260B	11/05/15 07:34		LBR 0.56	
Methyl iodide	Not detected	ug/L	1	SW8260B	11/05/15 07:34		LBR 0.25	
Carbon disulfide	Not detected	ug/L	5	SW8260B	11/05/15 07:34		LBR 0.24	
tert-Methyl butyl ether (MTBE)	Not detected	ug/L	5	SW8260B	11/05/15 07:34		LBR 0.19	
Acrylonitrile	Not detected	ug/L	2	SW8260B	11/05/15 07:34		LBR 0.57	
2-Butanone (MEK)	Not detected	ug/L	25	SW8260B	11/05/15 07:34		LBR 0.26	
Dichlorodifluoromethane	Not detected	ug/L	5	SW8260B	11/05/15 07:34		LBR 0.50	
Chloromethane	Not detected	ug/L	5	SW8260B	11/05/15 07:34		LBR 0.26	
Vinyl chloride	Not detected	ug/L	1	SW8260B	11/05/15 07:34		LBR 0.31	
Bromomethane	Not detected	ug/L	5	SW8260B	11/05/15 07:34		LBR 0.32	
Chloroethane	Not detected	ug/L	5	SW8260B	11/05/15 07:34		LBR 0.34	
Trichlorofluoromethane	Not detected	ug/L	1	SW8260B	11/05/15 07:34		LBR 0.33	
1,1-Dichloroethene	Not detected	ug/L	1	SW8260B	11/05/15 07:34		LBR 0.27	
Methylene chloride	Not detected	ug/L	5	SW8260B	11/05/15 07:34		LBR 0.29	
trans-1,2-Dichloroethene	Not detected	ug/L	1	SW8260B	11/05/15 07:34		LBR 0.20	
1,1-Dichloroethane	Not detected	ug/L	1	SW8260B	11/05/15 07:34		LBR 0.20	

b-Value detected less than reporting limit, but greater than MDL



# Analytical Laboratory Report

Lab Sample ID: S69167.01 (continued)

Sample Tag: MW 110S

Analysis	Results	Units	RL	Method	Run Date/Time	Tech	MDL	Flags
<b>Organics - Volatiles (continued)</b>								
<b>Volatile Organics - DEQ List (continued)</b>								
cis-1,2-Dichloroethene	Not detected	ug/L	1	SW8260B	11/05/15 07:34	LBR	0.26	
Tetrahydrofuran	Not detected	ug/L	90	SW8260B	11/05/15 07:34	LBR	1.3	
Chloroform	Not detected	ug/L	1	SW8260B	11/05/15 07:34	LBR	0.21	
Bromochloromethane	Not detected	ug/L	1	SW8260B	11/05/15 07:34	LBR	0.38	
1,1,1-Trichloroethane	Not detected	ug/L	1	SW8260B	11/05/15 07:34	LBR	0.28	
4-Methyl-2-pentanone (MIBK)	Not detected	ug/L	50	SW8260B	11/05/15 07:34	LBR	0.14	
2-Hexanone	Not detected	ug/L	50	SW8260B	11/05/15 07:34	LBR	0.29	
Carbon tetrachloride	Not detected	ug/L	1	SW8260B	11/05/15 07:34	LBR	0.20	
Benzene	Not detected	ug/L	1	SW8260B	11/05/15 07:34	LBR	0.20	
1,2-Dichloroethane	Not detected	ug/L	1	SW8260B	11/05/15 07:34	LBR	0.16	
Trichloroethene	Not detected	ug/L	1	SW8260B	11/05/15 07:34	LBR	0.23	
1,2-Dichloropropane	Not detected	ug/L	1	SW8260B	11/05/15 07:34	LBR	0.20	
Bromodichloromethane	Not detected	ug/L	1	SW8260B	11/05/15 07:34	LBR	0.23	
Dibromomethane	Not detected	ug/L	5	SW8260B	11/05/15 07:34	LBR	0.20	
cis-1,3-Dichloropropene	Not detected	ug/L	1	SW8260B	11/05/15 07:34	LBR	0.19	
Toluene	Not detected	ug/L	1	SW8260B	11/05/15 07:34	LBR	0.25	
trans-1,3-Dichloropropene	Not detected	ug/L	1	SW8260B	11/05/15 07:34	LBR	0.25	
1,1,2-Trichloroethane	Not detected	ug/L	1	SW8260B	11/05/15 07:34	LBR	0.28	
Tetrachloroethene	Not detected	ug/L	1	SW8260B	11/05/15 07:34	LBR	0.20	
trans-1,4-Dichloro-2-butene	Not detected	ug/L	1	SW8260B	11/05/15 07:34	LBR	0.20	
Dibromochloromethane	Not detected	ug/L	5	SW8260B	11/05/15 07:34	LBR	0.24	
1,2-Dibromoethane	Not detected	ug/L	1	SW8260B	11/05/15 07:34	LBR	0.30	
Chlorobenzene	Not detected	ug/L	1	SW8260B	11/05/15 07:34	LBR	0.17	
1,1,1,2-Tetrachloroethane	Not detected	ug/L	1	SW8260B	11/05/15 07:34	LBR	0.24	
Ethylbenzene	Not detected	ug/L	1	SW8260B	11/05/15 07:34	LBR	0.26	
p,m-Xylene	Not detected	ug/L	2	SW8260B	11/05/15 07:34	LBR	0.41	
o-Xylene	Not detected	ug/L	1	SW8260B	11/05/15 07:34	LBR	0.25	
Styrene	Not detected	ug/L	1	SW8260B	11/05/15 07:34	LBR	0.18	
Isopropylbenzene	Not detected	ug/L	5	SW8260B	11/05/15 07:34	LBR	0.25	
Bromoform	Not detected	ug/L	1	SW8260B	11/05/15 07:34	LBR	0.22	
1,1,2,2-Tetrachloroethane	Not detected	ug/L	1	SW8260B	11/05/15 07:34	LBR	0.18	
1,2,3-Trichloropropane	Not detected	ug/L	1	SW8260B	11/05/15 07:34	LBR	0.33	
n-Propylbenzene	Not detected	ug/L	1	SW8260B	11/05/15 07:34	LBR	0.23	
Bromobenzene	Not detected	ug/L	1	SW8260B	11/05/15 07:34	LBR	0.27	
1,3,5-Trimethylbenzene	Not detected	ug/L	1	SW8260B	11/05/15 07:34	LBR	0.26	
tert-Butylbenzene	Not detected	ug/L	1	SW8260B	11/05/15 07:34	LBR	0.18	
1,2,4-Trimethylbenzene	Not detected	ug/L	1	SW8260B	11/05/15 07:34	LBR	0.22	
sec-Butylbenzene	Not detected	ug/L	1	SW8260B	11/05/15 07:34	LBR	0.25	
p-Isopropyltoluene	Not detected	ug/L	5	SW8260B	11/05/15 07:34	LBR	0.21	
1,3-Dichlorobenzene	Not detected	ug/L	1	SW8260B	11/05/15 07:34	LBR	0.24	
1,4-Dichlorobenzene	Not detected	ug/L	1	SW8260B	11/05/15 07:34	LBR	0.23	
1,2-Dichlorobenzene	Not detected	ug/L	1	SW8260B	11/05/15 07:34	LBR	0.28	
1,2,3-Trimethylbenzene	Not detected	ug/L	1	SW8260B	11/05/15 07:34	LBR	0.061	
n-Butylbenzene	Not detected	ug/L	1	SW8260B	11/05/15 07:34	LBR	0.22	
Hexachloroethane	Not detected	ug/L	5	SW8260B	11/05/15 07:34	LBR	0.21	
1,2-Dibromo-3-chloropropane	Not detected	ug/L	5	SW8260B	11/05/15 07:34	LBR	0.47	
1,2,4-Trichlorobenzene	Not detected	ug/L	5	SW8260B	11/05/15 07:34	LBR	0.19	
1,2,3-Trichlorobenzene	Not detected	ug/L	5	SW8260B	11/05/15 07:34	LBR	0.20	
Naphthalene	Not detected	ug/L	5	SW8260B	11/05/15 07:34	LBR	0.21	



# Analytical Laboratory Report

Lab Sample ID: S69167.01 (continued)

Sample Tag: MW 110S

Analysis	Results	Units	RL	Method	Run Date/Time	Tech	MDL	Flags
<b>Organics - Volatiles (continued)</b>								
<b>Volatile Organics - DEQ List (continued)</b>								
2-Methylnaphthalene	Not detected	ug/L	5	SW8260B	11/05/15 07:34	LB	0.16	



# Analytical Laboratory Report

Lab Sample ID: S69167.02  
Sample Tag: MW 109S  
Collected Date/Time: 10/27/2015 15:30  
Matrix: Groundwater  
COC Reference: 85301

## Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	125ml Plastic	None	Yes	5.4	IR
1	125ml Plastic	HNO3	Yes	5.4	IR
3	40ml Glass	HCL	Yes	5.4	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Tech	MDL	Flags
<b>Extraction / Prep.</b>								
Metal Digestion	Completed			SW3015A	11/11/15 13:30		CCM	
Metal Digestion	Completed			SW3015A	10/30/15 15:30		CCM	
pH check for VOCs	<2	STD Units		N/A	11/05/15 13:56		ADB	
<b>Inorganics</b>								
Chromium VI, Dissolved	Not detected	mg/L	0.01	SM3500-Cr B	10/28/15 12:45	JKB	0.004	
<b>Metals</b>								
Arsenic, Dissolved	Not detected	mg/L	0.004	E200.8	11/11/15 15:50		CCM 0.00031	
Arsenic	0.04	mg/L	0.02	E200.8	11/05/15 13:19		CCM 0.0021	
Chromium, Dissolved	0.00050	mg/L	0.010	E200.8	11/11/15 15:50		CCM 0.00036	b
Chromium	0.07	mg/L	0.05	E200.8	11/05/15 13:19		CCM 0.0010	
Copper, Dissolved	0.00711	mg/L	0.010	E200.8	11/11/15 15:50		CCM 0.00065	b
Copper	0.09	mg/L	0.05	E200.8	11/05/15 13:19		CCM 0.00095	
Lead, Dissolved	Not detected	mg/L	0.006	E200.8	11/11/15 15:50		CCM 0.00071	
Lead	0.07	mg/L	0.03	E200.8	11/05/15 13:19		CCM 0.00045	
Selenium, Dissolved	0.0020	mg/L	0.010	E200.8	11/11/15 15:50		CCM 0.0012	b
Selenium	Not detected	mg/L	0.05	E200.8	11/05/15 13:19		CCM 0.012	
Zinc, Dissolved	0.015	mg/L	0.010	E200.8	11/11/15 15:50		CCM 0.0017	
Zinc	0.23	mg/L	0.05	E200.8	11/05/15 13:19		CCM 0.0032	
<b>Organics - Volatiles</b>								
<b>Volatile Organics - DEQ List</b>								
Diethyl ether	Not detected	ug/L	10	SW8260B	11/05/15 07:56		LBR 0.50	
Acetone	Not detected	ug/L	50	SW8260B	11/05/15 07:56		LBR 0.56	
Methyl iodide	Not detected	ug/L	1	SW8260B	11/05/15 07:56		LBR 0.25	
Carbon disulfide	Not detected	ug/L	5	SW8260B	11/05/15 07:56		LBR 0.24	
tert-Methyl butyl ether (MTBE)	Not detected	ug/L	5	SW8260B	11/05/15 07:56		LBR 0.19	
Acrylonitrile	Not detected	ug/L	2	SW8260B	11/05/15 07:56		LBR 0.57	
2-Butanone (MEK)	Not detected	ug/L	25	SW8260B	11/05/15 07:56		LBR 0.26	
Dichlorodifluoromethane	Not detected	ug/L	5	SW8260B	11/05/15 07:56		LBR 0.50	
Chloromethane	Not detected	ug/L	5	SW8260B	11/05/15 07:56		LBR 0.26	
Vinyl chloride	20	ug/L	1	SW8260B	11/05/15 07:56		LBR 0.31	
Bromomethane	Not detected	ug/L	5	SW8260B	11/05/15 07:56		LBR 0.32	
Chloroethane	Not detected	ug/L	5	SW8260B	11/05/15 07:56		LBR 0.34	
Trichlorofluoromethane	Not detected	ug/L	1	SW8260B	11/05/15 07:56		LBR 0.33	
1,1-Dichloroethene	5	ug/L	1	SW8260B	11/05/15 07:56		LBR 0.27	
Methylene chloride	Not detected	ug/L	5	SW8260B	11/05/15 07:56		LBR 0.29	
trans-1,2-Dichloroethene	2	ug/L	1	SW8260B	11/05/15 07:56		LBR 0.20	
1,1-Dichloroethane	3	ug/L	1	SW8260B	11/05/15 07:56		LBR 0.20	

b-Value detected less than reporting limit, but greater than MDL



# Analytical Laboratory Report

Lab Sample ID: S69167.02 (continued)

Sample Tag: MW 109S

Analysis	Results	Units	RL	Method	Run Date/Time	Tech	MDL	Flags
<b>Organics - Volatiles (continued)</b>								
<b>Volatile Organics - DEQ List (continued)</b>								
cis-1,2-Dichloroethene	81	ug/L	1	SW8260B	11/05/15 07:56	LBR	0.26	
Tetrahydrofuran	Not detected	ug/L	90	SW8260B	11/05/15 07:56	LBR	1.3	
Chloroform	0.36	ug/L	1	SW8260B	11/05/15 07:56	LBR	0.21	J
Bromochloromethane	Not detected	ug/L	1	SW8260B	11/05/15 07:56	LBR	0.38	
1,1,1-Trichloroethane	0.83	ug/L	1	SW8260B	11/05/15 07:56	LBR	0.28	J
4-Methyl-2-pentanone (MIBK)	Not detected	ug/L	50	SW8260B	11/05/15 07:56	LBR	0.14	
2-Hexanone	Not detected	ug/L	50	SW8260B	11/05/15 07:56	LBR	0.29	
Carbon tetrachloride	Not detected	ug/L	1	SW8260B	11/05/15 07:56	LBR	0.20	
Benzene	Not detected	ug/L	1	SW8260B	11/05/15 07:56	LBR	0.20	
1,2-Dichloroethane	Not detected	ug/L	1	SW8260B	11/05/15 07:56	LBR	0.16	
Trichloroethene	256	ug/L	1	SW8260B	11/05/15 07:56	LBR	0.23	E
1,2-Dichloropropane	Not detected	ug/L	1	SW8260B	11/05/15 07:56	LBR	0.20	
Bromodichloromethane	Not detected	ug/L	1	SW8260B	11/05/15 07:56	LBR	0.23	
Dibromomethane	Not detected	ug/L	5	SW8260B	11/05/15 07:56	LBR	0.20	
cis-1,3-Dichloropropene	Not detected	ug/L	1	SW8260B	11/05/15 07:56	LBR	0.19	
Toluene	Not detected	ug/L	1	SW8260B	11/05/15 07:56	LBR	0.25	
trans-1,3-Dichloropropene	Not detected	ug/L	1	SW8260B	11/05/15 07:56	LBR	0.25	
1,1,2-Trichloroethane	Not detected	ug/L	1	SW8260B	11/05/15 07:56	LBR	0.28	
Tetrachloroethene	Not detected	ug/L	1	SW8260B	11/05/15 07:56	LBR	0.20	
trans-1,4-Dichloro-2-butene	Not detected	ug/L	1	SW8260B	11/05/15 07:56	LBR	0.20	
Dibromochloromethane	Not detected	ug/L	5	SW8260B	11/05/15 07:56	LBR	0.24	
1,2-Dibromoethane	Not detected	ug/L	1	SW8260B	11/05/15 07:56	LBR	0.30	
Chlorobenzene	Not detected	ug/L	1	SW8260B	11/05/15 07:56	LBR	0.17	
1,1,1,2-Tetrachloroethane	Not detected	ug/L	1	SW8260B	11/05/15 07:56	LBR	0.24	
Ethylbenzene	Not detected	ug/L	1	SW8260B	11/05/15 07:56	LBR	0.26	
p,m-Xylene	Not detected	ug/L	2	SW8260B	11/05/15 07:56	LBR	0.41	
o-Xylene	Not detected	ug/L	1	SW8260B	11/05/15 07:56	LBR	0.25	
Styrene	Not detected	ug/L	1	SW8260B	11/05/15 07:56	LBR	0.18	
Isopropylbenzene	Not detected	ug/L	5	SW8260B	11/05/15 07:56	LBR	0.25	
Bromoform	Not detected	ug/L	1	SW8260B	11/05/15 07:56	LBR	0.22	
1,1,2,2-Tetrachloroethane	Not detected	ug/L	1	SW8260B	11/05/15 07:56	LBR	0.18	
1,2,3-Trichloropropane	Not detected	ug/L	1	SW8260B	11/05/15 07:56	LBR	0.33	
n-Propylbenzene	Not detected	ug/L	1	SW8260B	11/05/15 07:56	LBR	0.23	
Bromobenzene	Not detected	ug/L	1	SW8260B	11/05/15 07:56	LBR	0.27	
1,3,5-Trimethylbenzene	Not detected	ug/L	1	SW8260B	11/05/15 07:56	LBR	0.26	
tert-Butylbenzene	Not detected	ug/L	1	SW8260B	11/05/15 07:56	LBR	0.18	
1,2,4-Trimethylbenzene	Not detected	ug/L	1	SW8260B	11/05/15 07:56	LBR	0.22	
sec-Butylbenzene	Not detected	ug/L	1	SW8260B	11/05/15 07:56	LBR	0.25	
p-Isopropyltoluene	Not detected	ug/L	5	SW8260B	11/05/15 07:56	LBR	0.21	
1,3-Dichlorobenzene	Not detected	ug/L	1	SW8260B	11/05/15 07:56	LBR	0.24	
1,4-Dichlorobenzene	Not detected	ug/L	1	SW8260B	11/05/15 07:56	LBR	0.23	
1,2-Dichlorobenzene	Not detected	ug/L	1	SW8260B	11/05/15 07:56	LBR	0.28	
1,2,3-Trimethylbenzene	Not detected	ug/L	1	SW8260B	11/05/15 07:56	LBR	0.061	
n-Butylbenzene	Not detected	ug/L	1	SW8260B	11/05/15 07:56	LBR	0.22	
Hexachloroethane	Not detected	ug/L	5	SW8260B	11/05/15 07:56	LBR	0.21	
1,2-Dibromo-3-chloropropane	Not detected	ug/L	5	SW8260B	11/05/15 07:56	LBR	0.47	
1,2,4-Trichlorobenzene	Not detected	ug/L	5	SW8260B	11/05/15 07:56	LBR	0.19	

J-Estimated value less than reporting limit, but greater than MDL

E-Concentration exceeds calibration range



# Analytical Laboratory Report

Lab Sample ID: S69167.02 (continued)

Sample Tag: MW 109S

Analysis	Results	Units	RL	Method	Run Date/Time	Tech	MDL	Flags
<b>Organics - Volatiles (continued)</b>								
<b>Volatile Organics - DEQ List (continued)</b>								
1,2,3-Trichlorobenzene	Not detected	ug/L	5	SW8260B	11/05/15 07:56	LBR	0.20	
Naphthalene	Not detected	ug/L	5	SW8260B	11/05/15 07:56	LBR	0.21	
2-Methylnaphthalene	Not detected	ug/L	5	SW8260B	11/05/15 07:56	LBR	0.16	
<b>Volatile Organics - DEQ List (Replicate 01)</b>								
Diethyl ether	Not detected	ug/L	100	SW8260B	11/09/15 17:14	LBR	5.0	Y
Acetone	Not detected	ug/L	500	SW8260B	11/09/15 17:14	LBR	5.6	Y
Methyl iodide	Not detected	ug/L	10	SW8260B	11/09/15 17:14	LBR	2.5	Y
Carbon disulfide	Not detected	ug/L	50	SW8260B	11/09/15 17:14	LBR	2.4	Y
tert-Methyl butyl ether (MTBE)	Not detected	ug/L	50	SW8260B	11/09/15 17:14	LBR	1.9	Y
Acrylonitrile	Not detected	ug/L	20	SW8260B	11/09/15 17:14	LBR	5.7	Y
2-Butanone (MEK)	Not detected	ug/L	250	SW8260B	11/09/15 17:14	LBR	2.6	Y
Dichlorodifluoromethane	Not detected	ug/L	50	SW8260B	11/09/15 17:14	LBR	5.0	Y
Chloromethane	Not detected	ug/L	50	SW8260B	11/09/15 17:14	LBR	2.6	Y
Vinyl chloride	20	ug/L	10	SW8260B	11/09/15 17:14	LBR	3.1	Y
Bromomethane	Not detected	ug/L	50	SW8260B	11/09/15 17:14	LBR	3.2	Y
Chloroethane	Not detected	ug/L	50	SW8260B	11/09/15 17:14	LBR	3.4	Y
Trichlorofluoromethane	Not detected	ug/L	10	SW8260B	11/09/15 17:14	LBR	3.3	Y
1,1-Dichloroethene	5.3	ug/L	10	SW8260B	11/09/15 17:14	LBR	2.7	YJ
Methylene chloride	Not detected	ug/L	50	SW8260B	11/09/15 17:14	LBR	2.9	Y
trans-1,2-Dichloroethene	Not detected	ug/L	10	SW8260B	11/09/15 17:14	LBR	2.0	Y
1,1-Dichloroethane	3.3	ug/L	10	SW8260B	11/09/15 17:14	LBR	2.0	YJ
cis-1,2-Dichloroethene	80	ug/L	10	SW8260B	11/09/15 17:14	LBR	2.6	Y
Tetrahydrofuran	Not detected	ug/L	900	SW8260B	11/09/15 17:14	LBR	13	Y
Chloroform	Not detected	ug/L	10	SW8260B	11/09/15 17:14	LBR	2.1	Y
Bromochloromethane	Not detected	ug/L	10	SW8260B	11/09/15 17:14	LBR	3.8	Y
1,1,1-Trichloroethane	Not detected	ug/L	10	SW8260B	11/09/15 17:14	LBR	2.8	Y
4-Methyl-2-pentanone (MIBK)	Not detected	ug/L	500	SW8260B	11/09/15 17:14	LBR	1.4	Y
2-Hexanone	Not detected	ug/L	500	SW8260B	11/09/15 17:14	LBR	2.9	Y
Carbon tetrachloride	Not detected	ug/L	10	SW8260B	11/09/15 17:14	LBR	2.0	Y
Benzene	Not detected	ug/L	10	SW8260B	11/09/15 17:14	LBR	2.0	Y
1,2-Dichloroethane	Not detected	ug/L	10	SW8260B	11/09/15 17:14	LBR	1.6	Y
Trichloroethene	200	ug/L	10	SW8260B	11/09/15 17:14	LBR	2.3	Y
1,2-Dichloropropane	Not detected	ug/L	10	SW8260B	11/09/15 17:14	LBR	2.0	Y
Bromodichloromethane	Not detected	ug/L	10	SW8260B	11/09/15 17:14	LBR	2.3	Y
Dibromomethane	Not detected	ug/L	50	SW8260B	11/09/15 17:14	LBR	2.0	Y
cis-1,3-Dichloropropene	Not detected	ug/L	10	SW8260B	11/09/15 17:14	LBR	1.9	Y
Toluene	Not detected	ug/L	10	SW8260B	11/09/15 17:14	LBR	2.5	Y
trans-1,3-Dichloropropene	Not detected	ug/L	10	SW8260B	11/09/15 17:14	LBR	2.5	Y
1,1,2-Trichloroethane	Not detected	ug/L	10	SW8260B	11/09/15 17:14	LBR	2.8	Y
Tetrachloroethene	Not detected	ug/L	10	SW8260B	11/09/15 17:14	LBR	2.0	Y
trans-1,4-Dichloro-2-butene	Not detected	ug/L	10	SW8260B	11/09/15 17:14	LBR	2.0	Y
Dibromochloromethane	Not detected	ug/L	50	SW8260B	11/09/15 17:14	LBR	2.4	Y
1,2-Dibromoethane	Not detected	ug/L	10	SW8260B	11/09/15 17:14	LBR	3.0	Y
Chlorobenzene	Not detected	ug/L	10	SW8260B	11/09/15 17:14	LBR	1.7	Y
1,1,1,2-Tetrachloroethane	Not detected	ug/L	10	SW8260B	11/09/15 17:14	LBR	2.4	Y
Ethylbenzene	Not detected	ug/L	10	SW8260B	11/09/15 17:14	LBR	2.6	Y

Y-Elevated reporting limit due to high target concentration

J-Estimated value less than reporting limit, but greater than MDL



# Analytical Laboratory Report

Lab Sample ID: S69167.02 (continued)

Sample Tag: MW 109S

Analysis	Results	Units	RL	Method	Run Date/Time	Tech	MDL	Flags
<b>Organics - Volatiles (continued)</b>								
<b>Volatile Organics - DEQ List (Replicate 01) (continued)</b>								
p,m-Xylene	Not detected	ug/L	20	SW8260B	11/09/15 17:14	LBR	4.1	Y
o-Xylene	Not detected	ug/L	10	SW8260B	11/09/15 17:14	LBR	2.5	Y
Styrene	Not detected	ug/L	10	SW8260B	11/09/15 17:14	LBR	1.8	Y
Isopropylbenzene	Not detected	ug/L	50	SW8260B	11/09/15 17:14	LBR	2.5	Y
Bromoform	Not detected	ug/L	10	SW8260B	11/09/15 17:14	LBR	2.2	Y
1,1,2,2-Tetrachloroethane	Not detected	ug/L	10	SW8260B	11/09/15 17:14	LBR	1.8	Y
1,2,3-Trichloropropane	Not detected	ug/L	10	SW8260B	11/09/15 17:14	LBR	3.3	Y
n-Propylbenzene	Not detected	ug/L	10	SW8260B	11/09/15 17:14	LBR	2.3	Y
Bromobenzene	Not detected	ug/L	10	SW8260B	11/09/15 17:14	LBR	2.7	Y
1,3,5-Trimethylbenzene	Not detected	ug/L	10	SW8260B	11/09/15 17:14	LBR	2.6	Y
tert-Butylbenzene	Not detected	ug/L	10	SW8260B	11/09/15 17:14	LBR	1.8	Y
1,2,4-Trimethylbenzene	Not detected	ug/L	10	SW8260B	11/09/15 17:14	LBR	2.2	Y
sec-Butylbenzene	Not detected	ug/L	10	SW8260B	11/09/15 17:14	LBR	2.5	Y
p-Isopropyltoluene	Not detected	ug/L	50	SW8260B	11/09/15 17:14	LBR	2.1	Y
1,3-Dichlorobenzene	Not detected	ug/L	10	SW8260B	11/09/15 17:14	LBR	2.4	Y
1,4-Dichlorobenzene	Not detected	ug/L	10	SW8260B	11/09/15 17:14	LBR	2.3	Y
1,2-Dichlorobenzene	Not detected	ug/L	10	SW8260B	11/09/15 17:14	LBR	2.8	Y
1,2,3-Trimethylbenzene	Not detected	ug/L	10	SW8260B	11/09/15 17:14	LBR	0.61	Y
n-Butylbenzene	Not detected	ug/L	10	SW8260B	11/09/15 17:14	LBR	2.2	Y
Hexachloroethane	Not detected	ug/L	50	SW8260B	11/09/15 17:14	LBR	2.1	Y
1,2-Dibromo-3-chloropropane	Not detected	ug/L	50	SW8260B	11/09/15 17:14	LBR	4.7	Y
1,2,4-Trichlorobenzene	Not detected	ug/L	50	SW8260B	11/09/15 17:14	LBR	1.9	Y
1,2,3-Trichlorobenzene	Not detected	ug/L	50	SW8260B	11/09/15 17:14	LBR	2.0	Y
Naphthalene	Not detected	ug/L	50	SW8260B	11/09/15 17:14	LBR	2.1	Y
2-Methylnaphthalene	Not detected	ug/L	50	SW8260B	11/09/15 17:14	LBR	1.6	Y

Y-Elevated reporting limit due to high target concentration



# Analytical Laboratory Report

Lab Sample ID: S69167.03

Sample Tag: MW 108S

Collected Date/Time: 10/27/2015 16:00

Matrix: Groundwater

COC Reference: 85301

## Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	125ml Plastic	None	Yes	5.4	IR
1	125ml Plastic	HNO3	Yes	5.4	IR
3	40ml Glass	HCL	Yes	5.4	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Tech	MDL	Flags
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### Extraction / Prep.

Metal Digestion	Completed			SW3015A	11/11/15 13:30	CCM
Metal Digestion	Completed			SW3015A	10/30/15 15:30	CCM
pH check for VOCs	<2	STD Units		N/A	11/05/15 13:56	ADB

### Inorganics

Chromium VI, Dissolved	Not detected	mg/L	0.01	SM3500-Cr B	10/28/15 12:50	JKB	0.004
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### Metals

Arsenic, Dissolved	Not detected	mg/L	0.004	E200.8	11/11/15 15:53	CCM	0.00031
Arsenic	0.0184	mg/L	0.02	E200.8	11/05/15 13:20	CCM	0.0021
Chromium, Dissolved	0.00067	mg/L	0.010	E200.8	11/11/15 15:53	CCM	0.00036
Chromium	0.07	mg/L	0.05	E200.8	11/05/15 13:20	CCM	0.0010
Copper, Dissolved	0.00228	mg/L	0.010	E200.8	11/11/15 15:53	CCM	0.00065
Copper	0.09	mg/L	0.05	E200.8	11/05/15 13:20	CCM	0.00095
Lead, Dissolved	Not detected	mg/L	0.006	E200.8	11/11/15 15:53	CCM	0.00071
Lead	0.09	mg/L	0.03	E200.8	11/05/15 13:20	CCM	0.00045
Selenium, Dissolved	0.0014	mg/L	0.010	E200.8	11/11/15 15:53	CCM	0.0012
Selenium	Not detected	mg/L	0.05	E200.8	11/05/15 13:20	CCM	0.012
Zinc, Dissolved	0.016	mg/L	0.010	E200.8	11/11/15 15:53	CCM	0.0017
Zinc	0.35	mg/L	0.05	E200.8	11/05/15 13:20	CCM	0.0032

### Organics - Volatiles

#### Volatile Organics - DEQ List

Diethyl ether	Not detected	ug/L	10	SW8260B	11/05/15 08:18	LBR	0.50
Acetone	Not detected	ug/L	50	SW8260B	11/05/15 08:18	LBR	0.56
Methyl iodide	Not detected	ug/L	1	SW8260B	11/05/15 08:18	LBR	0.25
Carbon disulfide	Not detected	ug/L	5	SW8260B	11/05/15 08:18	LBR	0.24
tert-Methyl butyl ether (MTBE)	Not detected	ug/L	5	SW8260B	11/05/15 08:18	LBR	0.19
Acrylonitrile	Not detected	ug/L	2	SW8260B	11/05/15 08:18	LBR	0.57
2-Butanone (MEK)	Not detected	ug/L	25	SW8260B	11/05/15 08:18	LBR	0.26
Dichlorodifluoromethane	Not detected	ug/L	5	SW8260B	11/05/15 08:18	LBR	0.50
Chloromethane	Not detected	ug/L	5	SW8260B	11/05/15 08:18	LBR	0.26
Vinyl chloride	Not detected	ug/L	1	SW8260B	11/05/15 08:18	LBR	0.31
Bromomethane	Not detected	ug/L	5	SW8260B	11/05/15 08:18	LBR	0.32
Chloroethane	Not detected	ug/L	5	SW8260B	11/05/15 08:18	LBR	0.34
Trichlorofluoromethane	Not detected	ug/L	1	SW8260B	11/05/15 08:18	LBR	0.33
1,1-Dichloroethene	Not detected	ug/L	1	SW8260B	11/05/15 08:18	LBR	0.27
Methylene chloride	Not detected	ug/L	5	SW8260B	11/05/15 08:18	LBR	0.29
trans-1,2-Dichloroethene	Not detected	ug/L	1	SW8260B	11/05/15 08:18	LBR	0.20
1,1-Dichloroethane	Not detected	ug/L	1	SW8260B	11/05/15 08:18	LBR	0.20

b-Value detected less than reporting limit, but greater than MDL



# Analytical Laboratory Report

Lab Sample ID: S69167.03 (continued)

Sample Tag: MW 108S

Analysis	Results	Units	RL	Method	Run Date/Time	Tech	MDL	Flags
<b>Organics - Volatiles (continued)</b>								
<b>Volatile Organics - DEQ List (continued)</b>								
cis-1,2-Dichloroethene	0.66	ug/L	1	SW8260B	11/05/15 08:18	LBR	0.26	J
Tetrahydrofuran	Not detected	ug/L	90	SW8260B	11/05/15 08:18	LBR	1.3	
Chloroform	3	ug/L	1	SW8260B	11/05/15 08:18	LBR	0.21	
Bromochloromethane	Not detected	ug/L	1	SW8260B	11/05/15 08:18	LBR	0.38	
1,1,1-Trichloroethane	Not detected	ug/L	1	SW8260B	11/05/15 08:18	LBR	0.28	
4-Methyl-2-pentanone (MIBK)	Not detected	ug/L	50	SW8260B	11/05/15 08:18	LBR	0.14	
2-Hexanone	Not detected	ug/L	50	SW8260B	11/05/15 08:18	LBR	0.29	
Carbon tetrachloride	3	ug/L	1	SW8260B	11/05/15 08:18	LBR	0.20	
Benzene	Not detected	ug/L	1	SW8260B	11/05/15 08:18	LBR	0.20	
1,2-Dichloroethane	Not detected	ug/L	1	SW8260B	11/05/15 08:18	LBR	0.16	
Trichloroethene	0.33	ug/L	1	SW8260B	11/05/15 08:18	LBR	0.23	J
1,2-Dichloropropane	Not detected	ug/L	1	SW8260B	11/05/15 08:18	LBR	0.20	
Bromodichloromethane	Not detected	ug/L	1	SW8260B	11/05/15 08:18	LBR	0.23	
Dibromomethane	Not detected	ug/L	5	SW8260B	11/05/15 08:18	LBR	0.20	
cis-1,3-Dichloropropene	Not detected	ug/L	1	SW8260B	11/05/15 08:18	LBR	0.19	
Toluene	Not detected	ug/L	1	SW8260B	11/05/15 08:18	LBR	0.25	
trans-1,3-Dichloropropene	Not detected	ug/L	1	SW8260B	11/05/15 08:18	LBR	0.25	
1,1,2-Trichloroethane	Not detected	ug/L	1	SW8260B	11/05/15 08:18	LBR	0.28	
Tetrachloroethene	Not detected	ug/L	1	SW8260B	11/05/15 08:18	LBR	0.20	
trans-1,4-Dichloro-2-butene	Not detected	ug/L	1	SW8260B	11/05/15 08:18	LBR	0.20	
Dibromochloromethane	Not detected	ug/L	5	SW8260B	11/05/15 08:18	LBR	0.24	
1,2-Dibromoethane	Not detected	ug/L	1	SW8260B	11/05/15 08:18	LBR	0.30	
Chlorobenzene	Not detected	ug/L	1	SW8260B	11/05/15 08:18	LBR	0.17	
1,1,1,2-Tetrachloroethane	Not detected	ug/L	1	SW8260B	11/05/15 08:18	LBR	0.24	
Ethylbenzene	Not detected	ug/L	1	SW8260B	11/05/15 08:18	LBR	0.26	
p,m-Xylene	Not detected	ug/L	2	SW8260B	11/05/15 08:18	LBR	0.41	
o-Xylene	Not detected	ug/L	1	SW8260B	11/05/15 08:18	LBR	0.25	
Styrene	Not detected	ug/L	1	SW8260B	11/05/15 08:18	LBR	0.18	
Isopropylbenzene	Not detected	ug/L	5	SW8260B	11/05/15 08:18	LBR	0.25	
Bromoform	Not detected	ug/L	1	SW8260B	11/05/15 08:18	LBR	0.22	
1,1,2,2-Tetrachloroethane	Not detected	ug/L	1	SW8260B	11/05/15 08:18	LBR	0.18	
1,2,3-Trichloropropane	Not detected	ug/L	1	SW8260B	11/05/15 08:18	LBR	0.33	
n-Propylbenzene	Not detected	ug/L	1	SW8260B	11/05/15 08:18	LBR	0.23	
Bromobenzene	Not detected	ug/L	1	SW8260B	11/05/15 08:18	LBR	0.27	
1,3,5-Trimethylbenzene	Not detected	ug/L	1	SW8260B	11/05/15 08:18	LBR	0.26	
tert-Butylbenzene	Not detected	ug/L	1	SW8260B	11/05/15 08:18	LBR	0.18	
1,2,4-Trimethylbenzene	Not detected	ug/L	1	SW8260B	11/05/15 08:18	LBR	0.22	
sec-Butylbenzene	Not detected	ug/L	1	SW8260B	11/05/15 08:18	LBR	0.25	
p-Isopropyltoluene	Not detected	ug/L	5	SW8260B	11/05/15 08:18	LBR	0.21	
1,3-Dichlorobenzene	Not detected	ug/L	1	SW8260B	11/05/15 08:18	LBR	0.24	
1,4-Dichlorobenzene	Not detected	ug/L	1	SW8260B	11/05/15 08:18	LBR	0.23	
1,2-Dichlorobenzene	Not detected	ug/L	1	SW8260B	11/05/15 08:18	LBR	0.28	
1,2,3-Trimethylbenzene	Not detected	ug/L	1	SW8260B	11/05/15 08:18	LBR	0.061	
n-Butylbenzene	Not detected	ug/L	1	SW8260B	11/05/15 08:18	LBR	0.22	
Hexachloroethane	Not detected	ug/L	5	SW8260B	11/05/15 08:18	LBR	0.21	
1,2-Dibromo-3-chloropropane	Not detected	ug/L	5	SW8260B	11/05/15 08:18	LBR	0.47	
1,2,4-Trichlorobenzene	Not detected	ug/L	5	SW8260B	11/05/15 08:18	LBR	0.19	
1,2,3-Trichlorobenzene	Not detected	ug/L	5	SW8260B	11/05/15 08:18	LBR	0.20	

J-Estimated value less than reporting limit, but greater than MDL



# Analytical Laboratory Report

Lab Sample ID: S69167.03 (continued)

Sample Tag: MW 108S

Analysis	Results	Units	RL	Method	Run Date/Time	Tech	MDL	Flags
<b>Organics - Volatiles (continued)</b>								
<b>Volatile Organics - DEQ List (continued)</b>								
Naphthalene	Not detected	ug/L	5	SW8260B	11/05/15 08:18	LBLR	0.21	
2-Methylnaphthalene	Not detected	ug/L	5	SW8260B	11/05/15 08:18	LBLR	0.16	



# Analytical Laboratory Report

Lab Sample ID: S69167.04

Sample Tag: MW 103S

Collected Date/Time: 10/27/2015 17:00

Matrix: Groundwater

COC Reference: 85301

## Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	125ml Plastic	None	Yes	5.4	IR
1	125ml Plastic	HNO3	Yes	5.4	IR
3	40ml Glass	HCL	Yes	5.4	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Tech	MDL	Flags
<b>Extraction / Prep.</b>								
Metal Digestion	Completed			SW3015A	11/11/15 13:30		CCM	
Metal Digestion	Completed			SW3015A	10/30/15 15:30		CCM	
pH check for VOCs	<2	STD Units		N/A	11/05/15 13:56		ADB	
<b>Inorganics</b>								
Chromium VI, Dissolved	Not detected	mg/L	0.01	SM3500-Cr B	10/28/15 12:55	JKB	0.004	
<b>Metals</b>								
Arsenic, Dissolved	0.004	mg/L	0.004	E200.8	11/11/15 15:56		CCM 0.00031	
Arsenic	0.14	mg/L	0.02	E200.8	11/05/15 13:22		CCM 0.0021	
Chromium, Dissolved	0.00051	mg/L	0.010	E200.8	11/11/15 15:56		CCM 0.00036	b
Chromium	0.12	mg/L	0.05	E200.8	11/05/15 13:22		CCM 0.0010	
Copper, Dissolved	Not detected	mg/L	0.010	E200.8	11/11/15 15:56		CCM 0.00065	
Copper	0.16	mg/L	0.05	E200.8	11/05/15 13:22		CCM 0.00095	
Lead, Dissolved	Not detected	mg/L	0.006	E200.8	11/11/15 15:56		CCM 0.00071	
Lead	0.08	mg/L	0.03	E200.8	11/05/15 13:22		CCM 0.00045	
Selenium, Dissolved	Not detected	mg/L	0.010	E200.8	11/11/15 15:56		CCM 0.0012	
Selenium	Not detected	mg/L	0.05	E200.8	11/05/15 13:22		CCM 0.012	
Zinc, Dissolved	0.012	mg/L	0.010	E200.8	11/11/15 15:56		CCM 0.0017	
Zinc	0.41	mg/L	0.05	E200.8	11/05/15 13:22		CCM 0.0032	
<b>Organics - Volatiles</b>								
<b>Volatile Organics - DEQ List</b>								
Diethyl ether	Not detected	ug/L	10	SW8260B	11/09/15 16:07		LBR 0.50	
Acetone	Not detected	ug/L	50	SW8260B	11/09/15 16:07		LBR 0.56	
Methyl iodide	Not detected	ug/L	1	SW8260B	11/09/15 16:07		LBR 0.25	
Carbon disulfide	Not detected	ug/L	5	SW8260B	11/09/15 16:07		LBR 0.24	
tert-Methyl butyl ether (MTBE)	Not detected	ug/L	5	SW8260B	11/09/15 16:07		LBR 0.19	
Acrylonitrile	Not detected	ug/L	2	SW8260B	11/09/15 16:07		LBR 0.57	
2-Butanone (MEK)	1.74	ug/L	25	SW8260B	11/09/15 16:07		LBR 0.26	J
Dichlorodifluoromethane	Not detected	ug/L	5	SW8260B	11/09/15 16:07		LBR 0.50	
Chloromethane	Not detected	ug/L	5	SW8260B	11/09/15 16:07		LBR 0.26	
Vinyl chloride	Not detected	ug/L	1	SW8260B	11/09/15 16:07		LBR 0.31	
Bromomethane	Not detected	ug/L	5	SW8260B	11/09/15 16:07		LBR 0.32	
Chloroethane	Not detected	ug/L	5	SW8260B	11/09/15 16:07		LBR 0.34	
Trichlorofluoromethane	Not detected	ug/L	1	SW8260B	11/09/15 16:07		LBR 0.33	
1,1-Dichloroethene	Not detected	ug/L	1	SW8260B	11/09/15 16:07		LBR 0.27	
Methylene chloride	Not detected	ug/L	5	SW8260B	11/09/15 16:07		LBR 0.29	
trans-1,2-Dichloroethene	Not detected	ug/L	1	SW8260B	11/09/15 16:07		LBR 0.20	

b-Value detected less than reporting limit, but greater than MDL

J-Estimated value less than reporting limit, but greater than MDL



# Analytical Laboratory Report

Lab Sample ID: S69167.04 (continued)

Sample Tag: MW 103S

Analysis	Results	Units	RL	Method	Run Date/Time	Tech	MDL	Flags
<b>Organics - Volatiles (continued)</b>								
<b>Volatile Organics - DEQ List (continued)</b>								
1,1-Dichloroethane	Not detected	ug/L	1	SW8260B	11/09/15 16:07	LBR	0.20	
cis-1,2-Dichloroethene	Not detected	ug/L	1	SW8260B	11/09/15 16:07	LBR	0.26	
Tetrahydrofuran	Not detected	ug/L	90	SW8260B	11/09/15 16:07	LBR	1.3	
Chloroform	Not detected	ug/L	1	SW8260B	11/09/15 16:07	LBR	0.21	
Bromochloromethane	Not detected	ug/L	1	SW8260B	11/09/15 16:07	LBR	0.38	
1,1,1-Trichloroethane	Not detected	ug/L	1	SW8260B	11/09/15 16:07	LBR	0.28	
4-Methyl-2-pentanone (MIBK)	Not detected	ug/L	50	SW8260B	11/09/15 16:07	LBR	0.14	
2-Hexanone	Not detected	ug/L	50	SW8260B	11/09/15 16:07	LBR	0.29	
Carbon tetrachloride	Not detected	ug/L	1	SW8260B	11/09/15 16:07	LBR	0.20	
Benzene	0.21	ug/L	1	SW8260B	11/09/15 16:07	LBR	0.20	J
1,2-Dichloroethane	Not detected	ug/L	1	SW8260B	11/09/15 16:07	LBR	0.16	
Trichloroethene	Not detected	ug/L	1	SW8260B	11/09/15 16:07	LBR	0.23	
1,2-Dichloropropane	Not detected	ug/L	1	SW8260B	11/09/15 16:07	LBR	0.20	
Bromodichloromethane	Not detected	ug/L	1	SW8260B	11/09/15 16:07	LBR	0.23	
Dibromomethane	Not detected	ug/L	5	SW8260B	11/09/15 16:07	LBR	0.20	
cis-1,3-Dichloropropene	Not detected	ug/L	1	SW8260B	11/09/15 16:07	LBR	0.19	
Toluene	Not detected	ug/L	1	SW8260B	11/09/15 16:07	LBR	0.25	
trans-1,3-Dichloropropene	Not detected	ug/L	1	SW8260B	11/09/15 16:07	LBR	0.25	
1,1,2-Trichloroethane	Not detected	ug/L	1	SW8260B	11/09/15 16:07	LBR	0.28	
Tetrachloroethene	Not detected	ug/L	1	SW8260B	11/09/15 16:07	LBR	0.20	
trans-1,4-Dichloro-2-butene	Not detected	ug/L	1	SW8260B	11/09/15 16:07	LBR	0.20	
Dibromochloromethane	Not detected	ug/L	5	SW8260B	11/09/15 16:07	LBR	0.24	
1,2-Dibromoethane	Not detected	ug/L	1	SW8260B	11/09/15 16:07	LBR	0.30	
Chlorobenzene	Not detected	ug/L	1	SW8260B	11/09/15 16:07	LBR	0.17	
1,1,1,2-Tetrachloroethane	Not detected	ug/L	1	SW8260B	11/09/15 16:07	LBR	0.24	
Ethylbenzene	Not detected	ug/L	1	SW8260B	11/09/15 16:07	LBR	0.26	
p,m-Xylene	Not detected	ug/L	2	SW8260B	11/09/15 16:07	LBR	0.41	
o-Xylene	Not detected	ug/L	1	SW8260B	11/09/15 16:07	LBR	0.25	
Styrene	Not detected	ug/L	1	SW8260B	11/09/15 16:07	LBR	0.18	
Isopropylbenzene	Not detected	ug/L	5	SW8260B	11/09/15 16:07	LBR	0.25	
Bromoform	Not detected	ug/L	1	SW8260B	11/09/15 16:07	LBR	0.22	
1,1,2,2-Tetrachloroethane	Not detected	ug/L	1	SW8260B	11/09/15 16:07	LBR	0.18	
1,2,3-Trichloropropane	Not detected	ug/L	1	SW8260B	11/09/15 16:07	LBR	0.33	
n-Propylbenzene	Not detected	ug/L	1	SW8260B	11/09/15 16:07	LBR	0.23	
Bromobenzene	Not detected	ug/L	1	SW8260B	11/09/15 16:07	LBR	0.27	
1,3,5-Trimethylbenzene	Not detected	ug/L	1	SW8260B	11/09/15 16:07	LBR	0.26	
tert-Butylbenzene	Not detected	ug/L	1	SW8260B	11/09/15 16:07	LBR	0.18	
1,2,4-Trimethylbenzene	Not detected	ug/L	1	SW8260B	11/09/15 16:07	LBR	0.22	
sec-Butylbenzene	Not detected	ug/L	1	SW8260B	11/09/15 16:07	LBR	0.25	
p-Isopropyltoluene	Not detected	ug/L	5	SW8260B	11/09/15 16:07	LBR	0.21	
1,3-Dichlorobenzene	Not detected	ug/L	1	SW8260B	11/09/15 16:07	LBR	0.24	
1,4-Dichlorobenzene	Not detected	ug/L	1	SW8260B	11/09/15 16:07	LBR	0.23	
1,2-Dichlorobenzene	Not detected	ug/L	1	SW8260B	11/09/15 16:07	LBR	0.28	
1,2,3-Trimethylbenzene	Not detected	ug/L	1	SW8260B	11/09/15 16:07	LBR	0.061	
n-Butylbenzene	Not detected	ug/L	1	SW8260B	11/09/15 16:07	LBR	0.22	
Hexachloroethane	Not detected	ug/L	5	SW8260B	11/09/15 16:07	LBR	0.21	
1,2-Dibromo-3-chloropropane	Not detected	ug/L	5	SW8260B	11/09/15 16:07	LBR	0.47	
1,2,4-Trichlorobenzene	Not detected	ug/L	5	SW8260B	11/09/15 16:07	LBR	0.19	

J-Estimated value less than reporting limit, but greater than MDL



# Analytical Laboratory Report

Lab Sample ID: S69167.04 (continued)

Sample Tag: MW 103S

Analysis	Results	Units	RL	Method	Run Date/Time	Tech	MDL	Flags
<b>Organics - Volatiles (continued)</b>								
<b>Volatile Organics - DEQ List (continued)</b>								
1,2,3-Trichlorobenzene	Not detected	ug/L	5	SW8260B	11/09/15 16:07	LBR	0.20	
Naphthalene	Not detected	ug/L	5	SW8260B	11/09/15 16:07	LBR	0.21	
2-Methylnaphthalene	Not detected	ug/L	5	SW8260B	11/09/15 16:07	LBR	0.16	



# Analytical Laboratory Report

Lab Sample ID: S69167.05  
Sample Tag: MW 113S  
Collected Date/Time: 10/27/2015 15:00  
Matrix: Groundwater  
COC Reference: 85301

## Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	125ml Plastic	None	Yes	5.4	IR
1	125ml Plastic	HNO3	Yes	5.4	IR
3	40ml Glass	HCL	Yes	5.4	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Tech	MDL	Flags
<b>Extraction / Prep.</b>								
Metal Digestion	Completed			SW3015A	11/11/15 13:30		CCM	
Metal Digestion	Completed			SW3015A	10/30/15 15:30		CCM	
pH check for VOCs	<2	STD Units		N/A	11/05/15 13:56		ADB	
<b>Inorganics</b>								
Chromium VI, Dissolved	Not detected	mg/L	0.01	SM3500-Cr B	10/28/15 13:00	JKB	0.004	
<b>Metals</b>								
Arsenic, Dissolved	0.00109	mg/L	0.004	E200.8	11/11/15 15:59		CCM 0.00031	b
Arsenic	0.03	mg/L	0.02	E200.8	11/05/15 13:24		CCM 0.0021	
Chromium, Dissolved	0.00076	mg/L	0.010	E200.8	11/11/15 15:59		CCM 0.00036	b
Chromium	0.22	mg/L	0.05	E200.8	11/05/15 13:24		CCM 0.0010	
Copper, Dissolved	0.00313	mg/L	0.010	E200.8	11/11/15 15:59		CCM 0.00065	b
Copper	0.08	mg/L	0.05	E200.8	11/05/15 13:24		CCM 0.00095	
Lead, Dissolved	Not detected	mg/L	0.006	E200.8	11/11/15 15:59		CCM 0.00071	
Lead	0.05	mg/L	0.03	E200.8	11/05/15 13:24		CCM 0.00045	
Selenium, Dissolved	Not detected	mg/L	0.010	E200.8	11/11/15 15:59		CCM 0.0012	
Selenium	Not detected	mg/L	0.05	E200.8	11/05/15 13:24		CCM 0.012	
Zinc, Dissolved	0.084	mg/L	0.010	E200.8	11/11/15 15:59		CCM 0.0017	
Zinc	0.17	mg/L	0.05	E200.8	11/05/15 13:24		CCM 0.0032	
<b>Organics - Volatiles</b>								
<b>Volatile Organics - DEQ List</b>								
Diethyl ether	Not detected	ug/L	10	SW8260B	11/05/15 08:40		LBR 0.50	
Acetone	Not detected	ug/L	50	SW8260B	11/05/15 08:40		LBR 0.56	
Methyl iodide	Not detected	ug/L	1	SW8260B	11/05/15 08:40		LBR 0.25	
Carbon disulfide	Not detected	ug/L	5	SW8260B	11/05/15 08:40		LBR 0.24	
tert-Methyl butyl ether (MTBE)	Not detected	ug/L	5	SW8260B	11/05/15 08:40		LBR 0.19	
Acrylonitrile	Not detected	ug/L	2	SW8260B	11/05/15 08:40		LBR 0.57	
2-Butanone (MEK)	Not detected	ug/L	25	SW8260B	11/05/15 08:40		LBR 0.26	
Dichlorodifluoromethane	Not detected	ug/L	5	SW8260B	11/05/15 08:40		LBR 0.50	
Chloromethane	Not detected	ug/L	5	SW8260B	11/05/15 08:40		LBR 0.26	
Vinyl chloride	Not detected	ug/L	1	SW8260B	11/05/15 08:40		LBR 0.31	
Bromomethane	Not detected	ug/L	5	SW8260B	11/05/15 08:40		LBR 0.32	
Chloroethane	Not detected	ug/L	5	SW8260B	11/05/15 08:40		LBR 0.34	
Trichlorofluoromethane	Not detected	ug/L	1	SW8260B	11/05/15 08:40		LBR 0.33	
1,1-Dichloroethene	Not detected	ug/L	1	SW8260B	11/05/15 08:40		LBR 0.27	
Methylene chloride	Not detected	ug/L	5	SW8260B	11/05/15 08:40		LBR 0.29	
trans-1,2-Dichloroethene	0.27	ug/L	1	SW8260B	11/05/15 08:40		LBR 0.20	J

b-Value detected less than reporting limit, but greater than MDL

J-Estimated value less than reporting limit, but greater than MDL



# Analytical Laboratory Report

Lab Sample ID: S69167.05 (continued)

Sample Tag: MW 113S

Analysis	Results	Units	RL	Method	Run Date/Time	Tech	MDL	Flags
<b>Organics - Volatiles (continued)</b>								
<b>Volatile Organics - DEQ List (continued)</b>								
1,1-Dichloroethane	1	ug/L	1	SW8260B	11/05/15 08:40	LBR	0.20	
cis-1,2-Dichloroethene	23	ug/L	1	SW8260B	11/05/15 08:40	LBR	0.26	
Tetrahydrofuran	Not detected	ug/L	90	SW8260B	11/05/15 08:40	LBR	1.3	
Chloroform	Not detected	ug/L	1	SW8260B	11/05/15 08:40	LBR	0.21	
Bromochloromethane	Not detected	ug/L	1	SW8260B	11/05/15 08:40	LBR	0.38	
1,1,1-Trichloroethane	0.45	ug/L	1	SW8260B	11/05/15 08:40	LBR	0.28	J
4-Methyl-2-pentanone (MIBK)	Not detected	ug/L	50	SW8260B	11/05/15 08:40	LBR	0.14	
2-Hexanone	Not detected	ug/L	50	SW8260B	11/05/15 08:40	LBR	0.29	
Carbon tetrachloride	Not detected	ug/L	1	SW8260B	11/05/15 08:40	LBR	0.20	
Benzene	Not detected	ug/L	1	SW8260B	11/05/15 08:40	LBR	0.20	
1,2-Dichloroethane	Not detected	ug/L	1	SW8260B	11/05/15 08:40	LBR	0.16	
Trichloroethene	67	ug/L	1	SW8260B	11/05/15 08:40	LBR	0.23	
1,2-Dichloropropane	Not detected	ug/L	1	SW8260B	11/05/15 08:40	LBR	0.20	
Bromodichloromethane	Not detected	ug/L	1	SW8260B	11/05/15 08:40	LBR	0.23	
Dibromomethane	Not detected	ug/L	5	SW8260B	11/05/15 08:40	LBR	0.20	
cis-1,3-Dichloropropene	Not detected	ug/L	1	SW8260B	11/05/15 08:40	LBR	0.19	
Toluene	Not detected	ug/L	1	SW8260B	11/05/15 08:40	LBR	0.25	
trans-1,3-Dichloropropene	Not detected	ug/L	1	SW8260B	11/05/15 08:40	LBR	0.25	
1,1,2-Trichloroethane	Not detected	ug/L	1	SW8260B	11/05/15 08:40	LBR	0.28	
Tetrachloroethene	Not detected	ug/L	1	SW8260B	11/05/15 08:40	LBR	0.20	
trans-1,4-Dichloro-2-butene	Not detected	ug/L	1	SW8260B	11/05/15 08:40	LBR	0.20	
Dibromochloromethane	Not detected	ug/L	5	SW8260B	11/05/15 08:40	LBR	0.24	
1,2-Dibromoethane	Not detected	ug/L	1	SW8260B	11/05/15 08:40	LBR	0.30	
Chlorobenzene	Not detected	ug/L	1	SW8260B	11/05/15 08:40	LBR	0.17	
1,1,1,2-Tetrachloroethane	Not detected	ug/L	1	SW8260B	11/05/15 08:40	LBR	0.24	
Ethylbenzene	Not detected	ug/L	1	SW8260B	11/05/15 08:40	LBR	0.26	
p,m-Xylene	Not detected	ug/L	2	SW8260B	11/05/15 08:40	LBR	0.41	
o-Xylene	Not detected	ug/L	1	SW8260B	11/05/15 08:40	LBR	0.25	
Styrene	Not detected	ug/L	1	SW8260B	11/05/15 08:40	LBR	0.18	
Isopropylbenzene	Not detected	ug/L	5	SW8260B	11/05/15 08:40	LBR	0.25	
Bromoform	Not detected	ug/L	1	SW8260B	11/05/15 08:40	LBR	0.22	
1,1,2,2-Tetrachloroethane	Not detected	ug/L	1	SW8260B	11/05/15 08:40	LBR	0.18	
1,2,3-Trichloropropane	Not detected	ug/L	1	SW8260B	11/05/15 08:40	LBR	0.33	
n-Propylbenzene	Not detected	ug/L	1	SW8260B	11/05/15 08:40	LBR	0.23	
Bromobenzene	Not detected	ug/L	1	SW8260B	11/05/15 08:40	LBR	0.27	
1,3,5-Trimethylbenzene	Not detected	ug/L	1	SW8260B	11/05/15 08:40	LBR	0.26	
tert-Butylbenzene	Not detected	ug/L	1	SW8260B	11/05/15 08:40	LBR	0.18	
1,2,4-Trimethylbenzene	Not detected	ug/L	1	SW8260B	11/05/15 08:40	LBR	0.22	
sec-Butylbenzene	Not detected	ug/L	1	SW8260B	11/05/15 08:40	LBR	0.25	
p-Isopropyltoluene	Not detected	ug/L	5	SW8260B	11/05/15 08:40	LBR	0.21	
1,3-Dichlorobenzene	Not detected	ug/L	1	SW8260B	11/05/15 08:40	LBR	0.24	
1,4-Dichlorobenzene	Not detected	ug/L	1	SW8260B	11/05/15 08:40	LBR	0.23	
1,2-Dichlorobenzene	Not detected	ug/L	1	SW8260B	11/05/15 08:40	LBR	0.28	
1,2,3-Trimethylbenzene	Not detected	ug/L	1	SW8260B	11/05/15 08:40	LBR	0.061	
n-Butylbenzene	Not detected	ug/L	1	SW8260B	11/05/15 08:40	LBR	0.22	
Hexachloroethane	Not detected	ug/L	5	SW8260B	11/05/15 08:40	LBR	0.21	
1,2-Dibromo-3-chloropropane	Not detected	ug/L	5	SW8260B	11/05/15 08:40	LBR	0.47	
1,2,4-Trichlorobenzene	Not detected	ug/L	5	SW8260B	11/05/15 08:40	LBR	0.19	

J-Estimated value less than reporting limit, but greater than MDL



# Analytical Laboratory Report

Lab Sample ID: S69167.05 (continued)

Sample Tag: MW 113S

Analysis	Results	Units	RL	Method	Run Date/Time	Tech	MDL	Flags
<b>Organics - Volatiles (continued)</b>								
<b>Volatile Organics - DEQ List (continued)</b>								
1,2,3-Trichlorobenzene	Not detected	ug/L	5	SW8260B	11/05/15 08:40	LBR	0.20	
Naphthalene	Not detected	ug/L	5	SW8260B	11/05/15 08:40	LBR	0.21	
2-Methylnaphthalene	Not detected	ug/L	5	SW8260B	11/05/15 08:40	LBR	0.16	



# Analytical Laboratory Report

Lab Sample ID: S69167.06

Sample Tag: MW 111S

Collected Date/Time: 10/27/2015 16:30

Matrix: Groundwater

COC Reference: 85301

## Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	125ml Plastic	None	Yes	5.4	IR
1	125ml Plastic	HNO3	Yes	5.4	IR
3	40ml Glass	HCL	Yes	5.4	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Tech	MDL	Flags
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### Extraction / Prep.

Metal Digestion	Completed			SW3015A	11/11/15 13:30	CCM
Metal Digestion	Completed			SW3015A	10/30/15 15:30	CCM
pH check for VOCs	<2	STD Units		N/A	11/05/15 13:56	ADB

### Inorganics

Chromium VI, Dissolved	Not detected	mg/L	0.01	SM3500-Cr B	10/28/15 13:05	JKB	0.004
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### Metals

Arsenic, Dissolved	0.00051	mg/L	0.004	E200.8	11/11/15 16:02	CCM	0.00031	b
Arsenic	0.06	mg/L	0.02	E200.8	11/05/15 13:26	CCM	0.0021	
Chromium, Dissolved	0.00435	mg/L	0.010	E200.8	11/11/15 16:02	CCM	0.00036	b
Chromium	1.14	mg/L	0.05	E200.8	11/05/15 13:26	CCM	0.0010	
Copper, Dissolved	0.00285	mg/L	0.010	E200.8	11/11/15 16:02	CCM	0.00065	b
Copper	0.07	mg/L	0.05	E200.8	11/05/15 13:26	CCM	0.00095	
Lead, Dissolved	Not detected	mg/L	0.006	E200.8	11/11/15 16:02	CCM	0.00071	
Lead	0.04	mg/L	0.03	E200.8	11/05/15 13:26	CCM	0.00045	
Selenium, Dissolved	Not detected	mg/L	0.010	E200.8	11/11/15 16:02	CCM	0.0012	
Selenium	0.016	mg/L	0.05	E200.8	11/05/15 13:26	CCM	0.012	b
Zinc, Dissolved	0.034	mg/L	0.010	E200.8	11/11/15 16:02	CCM	0.0017	
Zinc	0.14	mg/L	0.05	E200.8	11/05/15 13:26	CCM	0.0032	

### Organics - Volatiles

#### Volatile Organics - DEQ List

Diethyl ether	Not detected	ug/L	10	SW8260B	11/05/15 09:02	LBR	0.50
Acetone	Not detected	ug/L	50	SW8260B	11/05/15 09:02	LBR	0.56
Methyl iodide	Not detected	ug/L	1	SW8260B	11/05/15 09:02	LBR	0.25
Carbon disulfide	Not detected	ug/L	5	SW8260B	11/05/15 09:02	LBR	0.24
tert-Methyl butyl ether (MTBE)	Not detected	ug/L	5	SW8260B	11/05/15 09:02	LBR	0.19
Acrylonitrile	Not detected	ug/L	2	SW8260B	11/05/15 09:02	LBR	0.57
2-Butanone (MEK)	Not detected	ug/L	25	SW8260B	11/05/15 09:02	LBR	0.26
Dichlorodifluoromethane	Not detected	ug/L	5	SW8260B	11/05/15 09:02	LBR	0.50
Chloromethane	Not detected	ug/L	5	SW8260B	11/05/15 09:02	LBR	0.26
Vinyl chloride	97	ug/L	1	SW8260B	11/05/15 09:02	LBR	0.31
Bromomethane	Not detected	ug/L	5	SW8260B	11/05/15 09:02	LBR	0.32
Chloroethane	Not detected	ug/L	5	SW8260B	11/05/15 09:02	LBR	0.34
Trichlorofluoromethane	Not detected	ug/L	1	SW8260B	11/05/15 09:02	LBR	0.33
1,1-Dichloroethene	4	ug/L	1	SW8260B	11/05/15 09:02	LBR	0.27
Methylene chloride	Not detected	ug/L	5	SW8260B	11/05/15 09:02	LBR	0.29
trans-1,2-Dichloroethene	1	ug/L	1	SW8260B	11/05/15 09:02	LBR	0.20
1,1-Dichloroethane	2	ug/L	1	SW8260B	11/05/15 09:02	LBR	0.20

b-Value detected less than reporting limit, but greater than MDL



# Analytical Laboratory Report

Lab Sample ID: S69167.06 (continued)

Sample Tag: MW 111S

Analysis	Results	Units	RL	Method	Run Date/Time	Tech	MDL	Flags
<b>Organics - Volatiles (continued)</b>								
<b>Volatile Organics - DEQ List (continued)</b>								
cis-1,2-Dichloroethene	42	ug/L	1	SW8260B	11/05/15 09:02	LBR	0.26	
Tetrahydrofuran	Not detected	ug/L	90	SW8260B	11/05/15 09:02	LBR	1.3	
Chloroform	Not detected	ug/L	1	SW8260B	11/05/15 09:02	LBR	0.21	
Bromochloromethane	Not detected	ug/L	1	SW8260B	11/05/15 09:02	LBR	0.38	
1,1,1-Trichloroethane	0.33	ug/L	1	SW8260B	11/05/15 09:02	LBR	0.28	J
4-Methyl-2-pentanone (MIBK)	Not detected	ug/L	50	SW8260B	11/05/15 09:02	LBR	0.14	
2-Hexanone	Not detected	ug/L	50	SW8260B	11/05/15 09:02	LBR	0.29	
Carbon tetrachloride	Not detected	ug/L	1	SW8260B	11/05/15 09:02	LBR	0.20	
Benzene	Not detected	ug/L	1	SW8260B	11/05/15 09:02	LBR	0.20	
1,2-Dichloroethane	Not detected	ug/L	1	SW8260B	11/05/15 09:02	LBR	0.16	
Trichloroethene	92	ug/L	1	SW8260B	11/05/15 09:02	LBR	0.23	
1,2-Dichloropropane	Not detected	ug/L	1	SW8260B	11/05/15 09:02	LBR	0.20	
Bromodichloromethane	Not detected	ug/L	1	SW8260B	11/05/15 09:02	LBR	0.23	
Dibromomethane	Not detected	ug/L	5	SW8260B	11/05/15 09:02	LBR	0.20	
cis-1,3-Dichloropropene	Not detected	ug/L	1	SW8260B	11/05/15 09:02	LBR	0.19	
Toluene	Not detected	ug/L	1	SW8260B	11/05/15 09:02	LBR	0.25	
trans-1,3-Dichloropropene	Not detected	ug/L	1	SW8260B	11/05/15 09:02	LBR	0.25	
1,1,2-Trichloroethane	Not detected	ug/L	1	SW8260B	11/05/15 09:02	LBR	0.28	
Tetrachloroethene	Not detected	ug/L	1	SW8260B	11/05/15 09:02	LBR	0.20	
trans-1,4-Dichloro-2-butene	Not detected	ug/L	1	SW8260B	11/05/15 09:02	LBR	0.20	
Dibromochloromethane	Not detected	ug/L	5	SW8260B	11/05/15 09:02	LBR	0.24	
1,2-Dibromoethane	Not detected	ug/L	1	SW8260B	11/05/15 09:02	LBR	0.30	
Chlorobenzene	Not detected	ug/L	1	SW8260B	11/05/15 09:02	LBR	0.17	
1,1,1,2-Tetrachloroethane	Not detected	ug/L	1	SW8260B	11/05/15 09:02	LBR	0.24	
Ethylbenzene	Not detected	ug/L	1	SW8260B	11/05/15 09:02	LBR	0.26	
p,m-Xylene	Not detected	ug/L	2	SW8260B	11/05/15 09:02	LBR	0.41	
o-Xylene	Not detected	ug/L	1	SW8260B	11/05/15 09:02	LBR	0.25	
Styrene	Not detected	ug/L	1	SW8260B	11/05/15 09:02	LBR	0.18	
Isopropylbenzene	Not detected	ug/L	5	SW8260B	11/05/15 09:02	LBR	0.25	
Bromoform	Not detected	ug/L	1	SW8260B	11/05/15 09:02	LBR	0.22	
1,1,2,2-Tetrachloroethane	Not detected	ug/L	1	SW8260B	11/05/15 09:02	LBR	0.18	
1,2,3-Trichloropropane	Not detected	ug/L	1	SW8260B	11/05/15 09:02	LBR	0.33	
n-Propylbenzene	Not detected	ug/L	1	SW8260B	11/05/15 09:02	LBR	0.23	
Bromobenzene	Not detected	ug/L	1	SW8260B	11/05/15 09:02	LBR	0.27	
1,3,5-Trimethylbenzene	Not detected	ug/L	1	SW8260B	11/05/15 09:02	LBR	0.26	
tert-Butylbenzene	Not detected	ug/L	1	SW8260B	11/05/15 09:02	LBR	0.18	
1,2,4-Trimethylbenzene	Not detected	ug/L	1	SW8260B	11/05/15 09:02	LBR	0.22	
sec-Butylbenzene	Not detected	ug/L	1	SW8260B	11/05/15 09:02	LBR	0.25	
p-Isopropyltoluene	Not detected	ug/L	5	SW8260B	11/05/15 09:02	LBR	0.21	
1,3-Dichlorobenzene	Not detected	ug/L	1	SW8260B	11/05/15 09:02	LBR	0.24	
1,4-Dichlorobenzene	Not detected	ug/L	1	SW8260B	11/05/15 09:02	LBR	0.23	
1,2-Dichlorobenzene	Not detected	ug/L	1	SW8260B	11/05/15 09:02	LBR	0.28	
1,2,3-Trimethylbenzene	Not detected	ug/L	1	SW8260B	11/05/15 09:02	LBR	0.061	
n-Butylbenzene	Not detected	ug/L	1	SW8260B	11/05/15 09:02	LBR	0.22	
Hexachloroethane	Not detected	ug/L	5	SW8260B	11/05/15 09:02	LBR	0.21	
1,2-Dibromo-3-chloropropane	Not detected	ug/L	5	SW8260B	11/05/15 09:02	LBR	0.47	
1,2,4-Trichlorobenzene	Not detected	ug/L	5	SW8260B	11/05/15 09:02	LBR	0.19	
1,2,3-Trichlorobenzene	Not detected	ug/L	5	SW8260B	11/05/15 09:02	LBR	0.20	

J-Estimated value less than reporting limit, but greater than MDL



# Analytical Laboratory Report

Lab Sample ID: S69167.06 (continued)

Sample Tag: MW 111S

Analysis	Results	Units	RL	Method	Run Date/Time	Tech	MDL	Flags
<b>Organics - Volatiles (continued)</b>								
<b>Volatile Organics - DEQ List (continued)</b>								
Naphthalene	Not detected	ug/L	5	SW8260B	11/05/15 09:02	LBR	0.21	
2-Methylnaphthalene	Not detected	ug/L	5	SW8260B	11/05/15 09:02	LBR	0.16	



# Analytical Laboratory Report

Lab Sample ID: S69167.07

Sample Tag: Trip Blank

Collected Date/Time: 10/27/2015 14:00

Matrix: Water

COC Reference: 85301

## Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40ml Glass	HCL	Yes	5.4	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Tech	MDL	Flags
<b>Extraction / Prep.</b> pH check for VOCs	<2	STD Units		N/A	11/05/15 13:56		ADB	

## Organics - Volatiles

### Volatile Organics - DEQ List

Diethyl ether	Not detected	ug/L	10	SW8260B	11/05/15 09:24	LBR	0.50	
Acetone	Not detected	ug/L	50	SW8260B	11/05/15 09:24	LBR	0.56	
Methyl iodide	Not detected	ug/L	1	SW8260B	11/05/15 09:24	LBR	0.25	
Carbon disulfide	Not detected	ug/L	5	SW8260B	11/05/15 09:24	LBR	0.24	
tert-Methyl butyl ether (MTBE)	Not detected	ug/L	5	SW8260B	11/05/15 09:24	LBR	0.19	
Acrylonitrile	Not detected	ug/L	2	SW8260B	11/05/15 09:24	LBR	0.57	
2-Butanone (MEK)	0.52	ug/L	25	SW8260B	11/05/15 09:24	LBR	0.26	J
Dichlorodifluoromethane	Not detected	ug/L	5	SW8260B	11/05/15 09:24	LBR	0.50	
Chloromethane	Not detected	ug/L	5	SW8260B	11/05/15 09:24	LBR	0.26	
Vinyl chloride	Not detected	ug/L	1	SW8260B	11/05/15 09:24	LBR	0.31	
Bromomethane	Not detected	ug/L	5	SW8260B	11/05/15 09:24	LBR	0.32	
Chloroethane	Not detected	ug/L	5	SW8260B	11/05/15 09:24	LBR	0.34	
Trichlorofluoromethane	Not detected	ug/L	1	SW8260B	11/05/15 09:24	LBR	0.33	
1,1-Dichloroethene	Not detected	ug/L	1	SW8260B	11/05/15 09:24	LBR	0.27	
Methylene chloride	Not detected	ug/L	5	SW8260B	11/05/15 09:24	LBR	0.29	
trans-1,2-Dichloroethene	Not detected	ug/L	1	SW8260B	11/05/15 09:24	LBR	0.20	
1,1-Dichloroethane	Not detected	ug/L	1	SW8260B	11/05/15 09:24	LBR	0.20	
cis-1,2-Dichloroethene	Not detected	ug/L	1	SW8260B	11/05/15 09:24	LBR	0.26	
Tetrahydrofuran	Not detected	ug/L	90	SW8260B	11/05/15 09:24	LBR	1.3	
Chloroform	Not detected	ug/L	1	SW8260B	11/05/15 09:24	LBR	0.21	
Bromochloromethane	Not detected	ug/L	1	SW8260B	11/05/15 09:24	LBR	0.38	
1,1,1-Trichloroethane	Not detected	ug/L	1	SW8260B	11/05/15 09:24	LBR	0.28	
4-Methyl-2-pentanone (MIBK)	Not detected	ug/L	50	SW8260B	11/05/15 09:24	LBR	0.14	
2-Hexanone	Not detected	ug/L	50	SW8260B	11/05/15 09:24	LBR	0.29	
Carbon tetrachloride	Not detected	ug/L	1	SW8260B	11/05/15 09:24	LBR	0.20	
Benzene	Not detected	ug/L	1	SW8260B	11/05/15 09:24	LBR	0.20	
1,2-Dichloroethane	Not detected	ug/L	1	SW8260B	11/05/15 09:24	LBR	0.16	
Trichloroethene	Not detected	ug/L	1	SW8260B	11/05/15 09:24	LBR	0.23	
1,2-Dichloropropane	Not detected	ug/L	1	SW8260B	11/05/15 09:24	LBR	0.20	
Bromodichloromethane	Not detected	ug/L	1	SW8260B	11/05/15 09:24	LBR	0.23	
Dibromomethane	Not detected	ug/L	5	SW8260B	11/05/15 09:24	LBR	0.20	
cis-1,3-Dichloropropene	Not detected	ug/L	1	SW8260B	11/05/15 09:24	LBR	0.19	
Toluene	Not detected	ug/L	1	SW8260B	11/05/15 09:24	LBR	0.25	
trans-1,3-Dichloropropene	Not detected	ug/L	1	SW8260B	11/05/15 09:24	LBR	0.25	
1,1,2-Trichloroethane	Not detected	ug/L	1	SW8260B	11/05/15 09:24	LBR	0.28	
Tetrachloroethene	Not detected	ug/L	1	SW8260B	11/05/15 09:24	LBR	0.20	
trans-1,4-Dichloro-2-butene	Not detected	ug/L	1	SW8260B	11/05/15 09:24	LBR	0.20	
Dibromochloromethane	Not detected	ug/L	5	SW8260B	11/05/15 09:24	LBR	0.24	

J-Estimated value less than reporting limit, but greater than MDL



# Analytical Laboratory Report

Lab Sample ID: S69167.07 (continued)

Sample Tag: Trip Blank

Analysis	Results	Units	RL	Method	Run Date/Time	Tech	MDL	Flags
<b>Organics - Volatiles (continued)</b>								
<b>Volatile Organics - DEQ List (continued)</b>								
1,2-Dibromoethane	Not detected	ug/L	1	SW8260B	11/05/15 09:24	LBR	0.30	
Chlorobenzene	Not detected	ug/L	1	SW8260B	11/05/15 09:24	LBR	0.17	
1,1,1,2-Tetrachloroethane	Not detected	ug/L	1	SW8260B	11/05/15 09:24	LBR	0.24	
Ethylbenzene	Not detected	ug/L	1	SW8260B	11/05/15 09:24	LBR	0.26	
p,m-Xylene	Not detected	ug/L	2	SW8260B	11/05/15 09:24	LBR	0.41	
o-Xylene	Not detected	ug/L	1	SW8260B	11/05/15 09:24	LBR	0.25	
Styrene	Not detected	ug/L	1	SW8260B	11/05/15 09:24	LBR	0.18	
Isopropylbenzene	Not detected	ug/L	5	SW8260B	11/05/15 09:24	LBR	0.25	
Bromoform	Not detected	ug/L	1	SW8260B	11/05/15 09:24	LBR	0.22	
1,1,2,2-Tetrachloroethane	Not detected	ug/L	1	SW8260B	11/05/15 09:24	LBR	0.18	
1,2,3-Trichloropropane	Not detected	ug/L	1	SW8260B	11/05/15 09:24	LBR	0.33	
n-Propylbenzene	Not detected	ug/L	1	SW8260B	11/05/15 09:24	LBR	0.23	
Bromobenzene	Not detected	ug/L	1	SW8260B	11/05/15 09:24	LBR	0.27	
1,3,5-Trimethylbenzene	Not detected	ug/L	1	SW8260B	11/05/15 09:24	LBR	0.26	
tert-Butylbenzene	Not detected	ug/L	1	SW8260B	11/05/15 09:24	LBR	0.18	
1,2,4-Trimethylbenzene	Not detected	ug/L	1	SW8260B	11/05/15 09:24	LBR	0.22	
sec-Butylbenzene	Not detected	ug/L	1	SW8260B	11/05/15 09:24	LBR	0.25	
p-Isopropyltoluene	Not detected	ug/L	5	SW8260B	11/05/15 09:24	LBR	0.21	
1,3-Dichlorobenzene	Not detected	ug/L	1	SW8260B	11/05/15 09:24	LBR	0.24	
1,4-Dichlorobenzene	Not detected	ug/L	1	SW8260B	11/05/15 09:24	LBR	0.23	
1,2-Dichlorobenzene	Not detected	ug/L	1	SW8260B	11/05/15 09:24	LBR	0.28	
1,2,3-Trimethylbenzene	Not detected	ug/L	1	SW8260B	11/05/15 09:24	LBR	0.061	
n-Butylbenzene	Not detected	ug/L	1	SW8260B	11/05/15 09:24	LBR	0.22	
Hexachloroethane	Not detected	ug/L	5	SW8260B	11/05/15 09:24	LBR	0.21	
1,2-Dibromo-3-chloropropane	Not detected	ug/L	5	SW8260B	11/05/15 09:24	LBR	0.47	
1,2,4-Trichlorobenzene	Not detected	ug/L	5	SW8260B	11/05/15 09:24	LBR	0.19	
1,2,3-Trichlorobenzene	Not detected	ug/L	5	SW8260B	11/05/15 09:24	LBR	0.20	
Naphthalene	Not detected	ug/L	5	SW8260B	11/05/15 09:24	LBR	0.21	
2-Methylnaphthalene	Not detected	ug/L	5	SW8260B	11/05/15 09:24	LBR	0.16	



# Analytical Laboratory Report

Lab Sample ID: S69167.08  
Sample Tag: Field Blank  
Collected Date/Time: 10/27/2015 14:30  
Matrix: Water  
COC Reference: 85301

## Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40ml Glass	HCL	Yes	5.4	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Tech	MDL	Flags
<b>Extraction / Prep.</b> pH check for VOCs	<2	STD Units		N/A	11/05/15 13:56		ADB	

## Organics - Volatiles

### Volatile Organics - DEQ List

Diethyl ether	Not detected	ug/L	10	SW8260B	11/05/15 09:46	LBR	0.50	
Acetone	Not detected	ug/L	50	SW8260B	11/05/15 09:46	LBR	0.56	
Methyl iodide	Not detected	ug/L	1	SW8260B	11/05/15 09:46	LBR	0.25	
Carbon disulfide	Not detected	ug/L	5	SW8260B	11/05/15 09:46	LBR	0.24	
tert-Methyl butyl ether (MTBE)	Not detected	ug/L	5	SW8260B	11/05/15 09:46	LBR	0.19	
Acrylonitrile	Not detected	ug/L	2	SW8260B	11/05/15 09:46	LBR	0.57	
2-Butanone (MEK)	0.90	ug/L	25	SW8260B	11/05/15 09:46	LBR	0.26	J
Dichlorodifluoromethane	Not detected	ug/L	5	SW8260B	11/05/15 09:46	LBR	0.50	
Chloromethane	Not detected	ug/L	5	SW8260B	11/05/15 09:46	LBR	0.26	
Vinyl chloride	Not detected	ug/L	1	SW8260B	11/05/15 09:46	LBR	0.31	
Bromomethane	Not detected	ug/L	5	SW8260B	11/05/15 09:46	LBR	0.32	
Chloroethane	Not detected	ug/L	5	SW8260B	11/05/15 09:46	LBR	0.34	
Trichlorofluoromethane	Not detected	ug/L	1	SW8260B	11/05/15 09:46	LBR	0.33	
1,1-Dichloroethene	Not detected	ug/L	1	SW8260B	11/05/15 09:46	LBR	0.27	
Methylene chloride	Not detected	ug/L	5	SW8260B	11/05/15 09:46	LBR	0.29	
trans-1,2-Dichloroethene	Not detected	ug/L	1	SW8260B	11/05/15 09:46	LBR	0.20	
1,1-Dichloroethane	Not detected	ug/L	1	SW8260B	11/05/15 09:46	LBR	0.20	
cis-1,2-Dichloroethene	Not detected	ug/L	1	SW8260B	11/05/15 09:46	LBR	0.26	
Tetrahydrofuran	Not detected	ug/L	90	SW8260B	11/05/15 09:46	LBR	1.3	
Chloroform	Not detected	ug/L	1	SW8260B	11/05/15 09:46	LBR	0.21	
Bromochloromethane	Not detected	ug/L	1	SW8260B	11/05/15 09:46	LBR	0.38	
1,1,1-Trichloroethane	Not detected	ug/L	1	SW8260B	11/05/15 09:46	LBR	0.28	
4-Methyl-2-pentanone (MIBK)	Not detected	ug/L	50	SW8260B	11/05/15 09:46	LBR	0.14	
2-Hexanone	Not detected	ug/L	50	SW8260B	11/05/15 09:46	LBR	0.29	
Carbon tetrachloride	Not detected	ug/L	1	SW8260B	11/05/15 09:46	LBR	0.20	
Benzene	Not detected	ug/L	1	SW8260B	11/05/15 09:46	LBR	0.20	
1,2-Dichloroethane	Not detected	ug/L	1	SW8260B	11/05/15 09:46	LBR	0.16	
Trichloroethene	Not detected	ug/L	1	SW8260B	11/05/15 09:46	LBR	0.23	
1,2-Dichloropropane	Not detected	ug/L	1	SW8260B	11/05/15 09:46	LBR	0.20	
Bromodichloromethane	Not detected	ug/L	1	SW8260B	11/05/15 09:46	LBR	0.23	
Dibromomethane	Not detected	ug/L	5	SW8260B	11/05/15 09:46	LBR	0.20	
cis-1,3-Dichloropropene	Not detected	ug/L	1	SW8260B	11/05/15 09:46	LBR	0.19	
Toluene	Not detected	ug/L	1	SW8260B	11/05/15 09:46	LBR	0.25	
trans-1,3-Dichloropropene	Not detected	ug/L	1	SW8260B	11/05/15 09:46	LBR	0.25	
1,1,2-Trichloroethane	Not detected	ug/L	1	SW8260B	11/05/15 09:46	LBR	0.28	
Tetrachloroethene	Not detected	ug/L	1	SW8260B	11/05/15 09:46	LBR	0.20	
trans-1,4-Dichloro-2-butene	Not detected	ug/L	1	SW8260B	11/05/15 09:46	LBR	0.20	
Dibromochloromethane	Not detected	ug/L	5	SW8260B	11/05/15 09:46	LBR	0.24	

J-Estimated value less than reporting limit, but greater than MDL



# Analytical Laboratory Report

Lab Sample ID: S69167.08 (continued)

Sample Tag: Field Blank

Analysis	Results	Units	RL	Method	Run Date/Time	Tech	MDL	Flags
<b>Organics - Volatiles (continued)</b>								
<b>Volatile Organics - DEQ List (continued)</b>								
1,2-Dibromoethane	Not detected	ug/L	1	SW8260B	11/05/15 09:46	LBR	0.30	
Chlorobenzene	Not detected	ug/L	1	SW8260B	11/05/15 09:46	LBR	0.17	
1,1,1,2-Tetrachloroethane	Not detected	ug/L	1	SW8260B	11/05/15 09:46	LBR	0.24	
Ethylbenzene	Not detected	ug/L	1	SW8260B	11/05/15 09:46	LBR	0.26	
p,m-Xylene	Not detected	ug/L	2	SW8260B	11/05/15 09:46	LBR	0.41	
o-Xylene	Not detected	ug/L	1	SW8260B	11/05/15 09:46	LBR	0.25	
Styrene	Not detected	ug/L	1	SW8260B	11/05/15 09:46	LBR	0.18	
Isopropylbenzene	Not detected	ug/L	5	SW8260B	11/05/15 09:46	LBR	0.25	
Bromoform	Not detected	ug/L	1	SW8260B	11/05/15 09:46	LBR	0.22	
1,1,2,2-Tetrachloroethane	Not detected	ug/L	1	SW8260B	11/05/15 09:46	LBR	0.18	
1,2,3-Trichloropropane	Not detected	ug/L	1	SW8260B	11/05/15 09:46	LBR	0.33	
n-Propylbenzene	Not detected	ug/L	1	SW8260B	11/05/15 09:46	LBR	0.23	
Bromobenzene	Not detected	ug/L	1	SW8260B	11/05/15 09:46	LBR	0.27	
1,3,5-Trimethylbenzene	Not detected	ug/L	1	SW8260B	11/05/15 09:46	LBR	0.26	
tert-Butylbenzene	Not detected	ug/L	1	SW8260B	11/05/15 09:46	LBR	0.18	
1,2,4-Trimethylbenzene	Not detected	ug/L	1	SW8260B	11/05/15 09:46	LBR	0.22	
sec-Butylbenzene	Not detected	ug/L	1	SW8260B	11/05/15 09:46	LBR	0.25	
p-Isopropyltoluene	Not detected	ug/L	5	SW8260B	11/05/15 09:46	LBR	0.21	
1,3-Dichlorobenzene	Not detected	ug/L	1	SW8260B	11/05/15 09:46	LBR	0.24	
1,4-Dichlorobenzene	Not detected	ug/L	1	SW8260B	11/05/15 09:46	LBR	0.23	
1,2-Dichlorobenzene	Not detected	ug/L	1	SW8260B	11/05/15 09:46	LBR	0.28	
1,2,3-Trimethylbenzene	Not detected	ug/L	1	SW8260B	11/05/15 09:46	LBR	0.061	
n-Butylbenzene	Not detected	ug/L	1	SW8260B	11/05/15 09:46	LBR	0.22	
Hexachloroethane	Not detected	ug/L	5	SW8260B	11/05/15 09:46	LBR	0.21	
1,2-Dibromo-3-chloropropane	Not detected	ug/L	5	SW8260B	11/05/15 09:46	LBR	0.47	
1,2,4-Trichlorobenzene	Not detected	ug/L	5	SW8260B	11/05/15 09:46	LBR	0.19	
1,2,3-Trichlorobenzene	Not detected	ug/L	5	SW8260B	11/05/15 09:46	LBR	0.20	
Naphthalene	Not detected	ug/L	5	SW8260B	11/05/15 09:46	LBR	0.21	
2-Methylnaphthalene	Not detected	ug/L	5	SW8260B	11/05/15 09:46	LBR	0.16	



# Analytical Laboratory Report

Lab Sample ID: S69167.09  
Sample Tag: Duplicate  
Collected Date/Time: 10/27/2015 00:01  
Matrix: Groundwater  
COC Reference: 85301

## Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	125ml Plastic	None	Yes	5.4	IR
1	125ml Plastic	HNO3	Yes	5.4	IR
2	40ml Glass	HCL	Yes	5.4	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Tech	MDL	Flags
<b>Extraction / Prep.</b>								
Metal Digestion	Completed			SW3015A	11/11/15 13:30		CCM	
Metal Digestion	Completed			SW3015A	10/30/15 15:30		CCM	
pH check for VOCs	<2	STD Units		N/A	11/05/15 13:56		ADB	
<b>Inorganics</b>								
Chromium VI, Dissolved	Not detected	mg/L	0.01	SM3500-Cr B	10/28/15 13:10	JKB	0.004	
<b>Metals</b>								
Arsenic, Dissolved	0.00318	mg/L	0.004	E200.8	11/11/15 16:05		CCM 0.00031	b
Arsenic	0.03	mg/L	0.02	E200.8	11/05/15 13:28		CCM 0.0021	
Chromium, Dissolved	0.00080	mg/L	0.010	E200.8	11/11/15 16:05		CCM 0.00036	b
Chromium	0.0139	mg/L	0.05	E200.8	11/05/15 13:28		CCM 0.0010	b
Copper, Dissolved	0.012	mg/L	0.010	E200.8	11/11/15 16:05		CCM 0.00065	
Copper	0.07	mg/L	0.05	E200.8	11/05/15 13:28		CCM 0.00095	
Lead, Dissolved	Not detected	mg/L	0.006	E200.8	11/11/15 16:05		CCM 0.00071	
Lead	0.01544	mg/L	0.03	E200.8	11/05/15 13:28		CCM 0.00045	b
Selenium, Dissolved	Not detected	mg/L	0.010	E200.8	11/11/15 16:05		CCM 0.0012	
Selenium	Not detected	mg/L	0.05	E200.8	11/05/15 13:28		CCM 0.012	
Zinc, Dissolved	0.051	mg/L	0.010	E200.8	11/11/15 16:05		CCM 0.0017	
Zinc	0.06	mg/L	0.05	E200.8	11/05/15 13:28		CCM 0.0032	
<b>Organics - Volatiles</b>								
<b>Volatile Organics - DEQ List</b>								
Diethyl ether	Not detected	ug/L	10	SW8260B	11/05/15 10:07	LBR	0.50	
Acetone	Not detected	ug/L	50	SW8260B	11/05/15 10:07	LBR	0.56	
Methyl iodide	Not detected	ug/L	1	SW8260B	11/05/15 10:07	LBR	0.25	
Carbon disulfide	Not detected	ug/L	5	SW8260B	11/05/15 10:07	LBR	0.24	
tert-Methyl butyl ether (MTBE)	Not detected	ug/L	5	SW8260B	11/05/15 10:07	LBR	0.19	
Acrylonitrile	Not detected	ug/L	2	SW8260B	11/05/15 10:07	LBR	0.57	
2-Butanone (MEK)	Not detected	ug/L	25	SW8260B	11/05/15 10:07	LBR	0.26	
Dichlorodifluoromethane	Not detected	ug/L	5	SW8260B	11/05/15 10:07	LBR	0.50	
Chloromethane	Not detected	ug/L	5	SW8260B	11/05/15 10:07	LBR	0.26	
Vinyl chloride	Not detected	ug/L	1	SW8260B	11/05/15 10:07	LBR	0.31	
Bromomethane	Not detected	ug/L	5	SW8260B	11/05/15 10:07	LBR	0.32	
Chloroethane	Not detected	ug/L	5	SW8260B	11/05/15 10:07	LBR	0.34	
Trichlorofluoromethane	Not detected	ug/L	1	SW8260B	11/05/15 10:07	LBR	0.33	
1,1-Dichloroethene	Not detected	ug/L	1	SW8260B	11/05/15 10:07	LBR	0.27	
Methylene chloride	Not detected	ug/L	5	SW8260B	11/05/15 10:07	LBR	0.29	
trans-1,2-Dichloroethene	Not detected	ug/L	1	SW8260B	11/05/15 10:07	LBR	0.20	
1,1-Dichloroethane	Not detected	ug/L	1	SW8260B	11/05/15 10:07	LBR	0.20	

b-Value detected less than reporting limit, but greater than MDL



# Analytical Laboratory Report

Lab Sample ID: S69167.09 (continued)

Sample Tag: Duplicate

Analysis	Results	Units	RL	Method	Run Date/Time	Tech	MDL	Flags
<b>Organics - Volatiles (continued)</b>								
<b>Volatile Organics - DEQ List (continued)</b>								
cis-1,2-Dichloroethene	Not detected	ug/L	1	SW8260B	11/05/15 10:07	LBR	0.26	
Tetrahydrofuran	Not detected	ug/L	90	SW8260B	11/05/15 10:07	LBR	1.3	
Chloroform	Not detected	ug/L	1	SW8260B	11/05/15 10:07	LBR	0.21	
Bromochloromethane	Not detected	ug/L	1	SW8260B	11/05/15 10:07	LBR	0.38	
1,1,1-Trichloroethane	Not detected	ug/L	1	SW8260B	11/05/15 10:07	LBR	0.28	
4-Methyl-2-pentanone (MIBK)	Not detected	ug/L	50	SW8260B	11/05/15 10:07	LBR	0.14	
2-Hexanone	Not detected	ug/L	50	SW8260B	11/05/15 10:07	LBR	0.29	
Carbon tetrachloride	Not detected	ug/L	1	SW8260B	11/05/15 10:07	LBR	0.20	
Benzene	Not detected	ug/L	1	SW8260B	11/05/15 10:07	LBR	0.20	
1,2-Dichloroethane	Not detected	ug/L	1	SW8260B	11/05/15 10:07	LBR	0.16	
Trichloroethene	Not detected	ug/L	1	SW8260B	11/05/15 10:07	LBR	0.23	
1,2-Dichloropropane	Not detected	ug/L	1	SW8260B	11/05/15 10:07	LBR	0.20	
Bromodichloromethane	Not detected	ug/L	1	SW8260B	11/05/15 10:07	LBR	0.23	
Dibromomethane	Not detected	ug/L	5	SW8260B	11/05/15 10:07	LBR	0.20	
cis-1,3-Dichloropropene	Not detected	ug/L	1	SW8260B	11/05/15 10:07	LBR	0.19	
Toluene	Not detected	ug/L	1	SW8260B	11/05/15 10:07	LBR	0.25	
trans-1,3-Dichloropropene	Not detected	ug/L	1	SW8260B	11/05/15 10:07	LBR	0.25	
1,1,2-Trichloroethane	Not detected	ug/L	1	SW8260B	11/05/15 10:07	LBR	0.28	
Tetrachloroethene	Not detected	ug/L	1	SW8260B	11/05/15 10:07	LBR	0.20	
trans-1,4-Dichloro-2-butene	Not detected	ug/L	1	SW8260B	11/05/15 10:07	LBR	0.20	
Dibromochloromethane	Not detected	ug/L	5	SW8260B	11/05/15 10:07	LBR	0.24	
1,2-Dibromoethane	Not detected	ug/L	1	SW8260B	11/05/15 10:07	LBR	0.30	
Chlorobenzene	Not detected	ug/L	1	SW8260B	11/05/15 10:07	LBR	0.17	
1,1,1,2-Tetrachloroethane	Not detected	ug/L	1	SW8260B	11/05/15 10:07	LBR	0.24	
Ethylbenzene	Not detected	ug/L	1	SW8260B	11/05/15 10:07	LBR	0.26	
p,m-Xylene	Not detected	ug/L	2	SW8260B	11/05/15 10:07	LBR	0.41	
o-Xylene	Not detected	ug/L	1	SW8260B	11/05/15 10:07	LBR	0.25	
Styrene	Not detected	ug/L	1	SW8260B	11/05/15 10:07	LBR	0.18	
Isopropylbenzene	Not detected	ug/L	5	SW8260B	11/05/15 10:07	LBR	0.25	
Bromoform	Not detected	ug/L	1	SW8260B	11/05/15 10:07	LBR	0.22	
1,1,2,2-Tetrachloroethane	Not detected	ug/L	1	SW8260B	11/05/15 10:07	LBR	0.18	
1,2,3-Trichloropropane	Not detected	ug/L	1	SW8260B	11/05/15 10:07	LBR	0.33	
n-Propylbenzene	Not detected	ug/L	1	SW8260B	11/05/15 10:07	LBR	0.23	
Bromobenzene	Not detected	ug/L	1	SW8260B	11/05/15 10:07	LBR	0.27	
1,3,5-Trimethylbenzene	Not detected	ug/L	1	SW8260B	11/05/15 10:07	LBR	0.26	
tert-Butylbenzene	Not detected	ug/L	1	SW8260B	11/05/15 10:07	LBR	0.18	
1,2,4-Trimethylbenzene	Not detected	ug/L	1	SW8260B	11/05/15 10:07	LBR	0.22	
sec-Butylbenzene	Not detected	ug/L	1	SW8260B	11/05/15 10:07	LBR	0.25	
p-Isopropyltoluene	Not detected	ug/L	5	SW8260B	11/05/15 10:07	LBR	0.21	
1,3-Dichlorobenzene	Not detected	ug/L	1	SW8260B	11/05/15 10:07	LBR	0.24	
1,4-Dichlorobenzene	Not detected	ug/L	1	SW8260B	11/05/15 10:07	LBR	0.23	
1,2-Dichlorobenzene	Not detected	ug/L	1	SW8260B	11/05/15 10:07	LBR	0.28	
1,2,3-Trimethylbenzene	Not detected	ug/L	1	SW8260B	11/05/15 10:07	LBR	0.061	
n-Butylbenzene	Not detected	ug/L	1	SW8260B	11/05/15 10:07	LBR	0.22	
Hexachloroethane	Not detected	ug/L	5	SW8260B	11/05/15 10:07	LBR	0.21	
1,2-Dibromo-3-chloropropane	Not detected	ug/L	5	SW8260B	11/05/15 10:07	LBR	0.47	
1,2,4-Trichlorobenzene	Not detected	ug/L	5	SW8260B	11/05/15 10:07	LBR	0.19	
1,2,3-Trichlorobenzene	Not detected	ug/L	5	SW8260B	11/05/15 10:07	LBR	0.20	
Naphthalene	Not detected	ug/L	5	SW8260B	11/05/15 10:07	LBR	0.21	



# Analytical Laboratory Report

Lab Sample ID: S69167.09 (continued)

Sample Tag: Duplicate

Analysis	Results	Units	RL	Method	Run Date/Time	Tech	MDL	Flags
<b>Organics - Volatiles (continued)</b>								
<b>Volatile Organics - DEQ List (continued)</b>								
2-Methylnaphthalene	Not detected	ug/L	5	SW8260B	11/05/15 10:07	LB	0.16	



2680 East Lansing Dr., East Lansing, MI 48823  
 Phone (517) 332-0167 Fax (517) 332-4034  
[www.meritlabs.com](http://www.meritlabs.com)

C.O.C. PAGE # \_\_\_\_\_ OF \_\_\_\_\_

85301

**REPORT TO**

**CHAIN OF CUSTODY RECORD**

**INVOICE TO**

CONTACT NAME		
COMPANY <b>APPL100 ECo Systems</b>		
ADDRESS		
CITY <b>BURTON MI</b>		STATE <b>MI</b> ZIP CODE <b>48529</b>
PHONE NO. <b>JAnderson Q</b>	FAX NO.	P.O. NO.
E-MAIL ADDRESS <b>APPL100 ECoSystems.com</b>		QUOTE NO.

CONTACT NAME		
COMPANY		
ADDRESS		
CITY		STATE ZIP CODE
PHONE NO.		E-MAIL ADDRESS <b>AE-m05 Q Inter.com</b>

PROJECT NO./NAME <b>Roger Flint West 12990</b>	SAMPLER(S) - PLEASE PRINT/SIGN NAME <b>Jesse Anderson Tyler Wilson</b>
TURNAROUND TIME REQUIRED <input type="checkbox"/> 1 DAY <input type="checkbox"/> 2 DAYS <input type="checkbox"/> 3 DAYS <input checked="" type="checkbox"/> STANDARD <input type="checkbox"/> OTHER	
DELIVERABLES REQUIRED <input type="checkbox"/> STD <input type="checkbox"/> LEVEL II <input type="checkbox"/> LEVEL III <input checked="" type="checkbox"/> LEVEL IV <input type="checkbox"/> EDD <input type="checkbox"/> OTHER	

**ANALYSIS (ATTACH LIST IF MORE SPACE IS REQUIRED)**

**Certifications**

- OHIO VAP  Drinking Water  
 DoD  NPDES

**Project Locations**

- Detroit  New York

- Other \_\_\_\_\_

**Special Instructions**

**\* ARSENIC  
COPPER  
LEAD  
ZINC  
Selenium  
Chromium  
Chromium Six**

MERIT LAB NO. FOR LAB USE ONLY	YEAR		SAMPLE TAG IDENTIFICATION-DESCRIPTION	MATRIX	# OF BOTTLES	# Containers & Preservatives						
	DATE	TIME				None	HCl	HNO <sub>3</sub>	H <sub>2</sub> SO <sub>4</sub>	NaOH	MeOH	Other
09/07/01	10/27/01	2:30	MW 110 S	Gw	5	X	Y	Y				
.02	↓	3:30	MW 109 S	S	1 3 1	X	Y	X				
.03	↓	4 pm	MW 108 S	S	1 3 1	X	Y	X				
.04	↓	5 pm	MW 103 S	S	1 3 1	X	Y	X				
.05	↓	3pm	MW 113 S	S	1 3 1	X	Y	X				
.06	↓	4:30	MW 111 S	↓ S	1 3 1	Y	Y	Y				
.07	↓	2:00	Field Blank	W	1 0 1 0	Y						
.08	↓	2:30	Field Blank	W	1 0 1 0	Y						
.09	↓		Duplicate	Gw	4 1 2 1	Y	Y	Y				

RELINQUISHED BY: SIGNATURE/ORGANIZATION		Sampler	DATE <b>10/28/15</b>	TIME <b>11:25</b>
RECEIVED BY: SIGNATURE/ORGANIZATION		DATE <b>10/28/15</b>	TIME <b>11:25</b>	
RELINQUISHED BY: SIGNATURE/ORGANIZATION		DATE	TIME	
RECEIVED BY: SIGNATURE/ORGANIZATION		DATE	TIME	

RELINQUISHED BY: SIGNATURE/ORGANIZATION	DATE	TIME		
RECEIVED BY: SIGNATURE/ORGANIZATION	DATE	TIME		
SEAL NO.	SEAL INTACT YES <input type="checkbox"/> NO <input type="checkbox"/>	INITIALS	NOTES:	TEMP. ON ARRIVAL <b>S.4</b>
SEAL NO.	SEAL INTACT YES <input type="checkbox"/> NO <input type="checkbox"/>	INITIALS		



# Analytical Laboratory Report

Report ID: S69136.01(01)

Generated on 11/11/2015

## Report to

Attention: Jesse Anderson  
Applied Ecosystems  
G4300 S. Saginaw St.  
Burton, MI 48529

Phone: 248-688-2475 FAX: 810-715-2526  
Email: janderson@appliedecosystems.com

Additional Contacts: Mike Smith

## Report produced by

Merit Laboratories, Inc.  
2680 East Lansing Drive  
East Lansing, MI 48823

Phone: (517) 332-0167 FAX: (517) 332-6333

Contacts for report questions:  
Kevin George (kgeorge@meritlabs.com)  
Barbara Ball (bball@meritlabs.com)

## Report Summary

Lab Sample ID(s): S69136.01-S69136.10

Project: RACER Flint West 12990

Collected Date: 10/26/2015

Submitted Date/Time: 10/27/2015 12:50

Sampled by: Unknown

P.O. #: PO219269

## Table of Contents

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Report Narrative (Page 2)  
Laboratory Certifications (Page 3)  
Qualifier Descriptions (Page 3)  
Glossary of Abbreviations (Page 3)  
Method Summary (Page 4)  
Sample Summary (Page 5)

A handwritten signature in black ink, appearing to read "Maya Murshak".

Maya Murshak  
Technical Director



# Analytical Laboratory Report

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## General Report Notes

Results relate only to items tested as received by laboratory.

Methods may be modified for improved performance.

Results reported on a dry weight basis where applicable.

'Not detected' indicates that parameter was not found at a level equal to or greater than the reporting limit (RL).

40 CFR Part 136 Table II Required Containers, Preservation Techniques and Holding Times for the Clean Water Act specify that samples for acrolein and acrylonitrile need to be preserved at a pH in the range of 4 to 5 or if not preserved, analyzed within 3 days of sampling.

QA/QC corresponding to this analytical report is a separate document with the same Merit ID reference and is available upon request.

Full accreditation certificates are available upon request.

Samples are held by the lab for 30 days from the final report date unless a written request to hold longer is provided by the client.

Report shall not be reproduced except in full, without the written approval of Merit Laboratories, Inc.

---

## Report Narrative

There is no additional narrative for this analytical report



# Analytical Laboratory Report

## Laboratory Certifications

Authority	Certification ID
Michigan DEQ	#9956
DOD ELAP/ISO 17025	#69699
WBENC	#2005110032
Ohio VAP	#CL0002
Indiana DOH	#C-MI-07
New York NELAC	#11814
North Carolina DENR	#680
North Carolina DOH	#26702

## Qualifier Descriptions

Qualifier	Description
!	Result is outside of stated limit criteria
B	Compound also found in associated method blank
E	Concentration exceeds calibration range
F	Analysis run outside of holding time
G	Estimated result due to extraction run outside of holding time
H	Sample submitted and run outside of holding time
I	Matrix interference with internal standard
J	Estimated value less than reporting limit, but greater than MDL
L	Elevated reporting limit due to low sample amount
M	Result reported to MDL not RDL
O	Analysis performed by outside laboratory. See attached report.
R	Preliminary result
S	Surrogate recovery outside of control limits
T	No correction for total solids
X	Elevated reporting limit due to matrix interference
Y	Elevated reporting limit due to high target concentration
b	Value detected less than reporting limit, but greater than MDL
e	Reported value estimated due to interference
j	Analyte also found in associated method blank
p	Benzo(b)Fluoranthene and Benzo(k)Fluoranthene integrated as one peak.
x	Preserved from bulk sample

## Glossary of Abbreviations

Abbreviation	Description
RL/RDL	Reporting Limit
MDL	Method Detection Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
SW	EPA SW 846 (Soil and Wastewater) Methods
E	EPA Methods
SM	Standard Methods



# Analytical Laboratory Report

## Method Summary

Method	Version
E200.8	EPA Method 200.8 Revision 5.4
N/A	Not Applicable
SM3500-Cr B	Standard Method 3500 Cr B 20th Edition
SW3015A	SW 846 Method 3015A Revision 1 February 2007
SW8260B	SW 846 Method 8260B Revision 2 December 1996



# Analytical Laboratory Report

## Sample Summary (10 samples)

Sample ID	Sample Tag	Matrix	Collected Date/Time
S69136.01	MW 101S	Groundwater	10/26/15 14:30
S69136.02	MW 102S	Groundwater	10/26/15 14:45
S69136.03	MW 104S	Groundwater	10/26/15 13:45
S69136.04	MW 105S	Groundwater	10/26/15 13:30
S69136.05	MW 112S	Groundwater	10/26/15 15:15
S69136.06	MW 107S	Groundwater	10/26/15 16:00
S69136.07	MW 106SR	Groundwater	10/26/15 16:30
S69136.08	Trip Blank	Liquid	10/26/15 13:00
S69136.09	Field Blank	Liquid	10/26/15 13:30
S69136.10	Duplicate	Liquid	10/26/15 00:01



# Analytical Laboratory Report

Lab Sample ID: S69136.01  
Sample Tag: MW 101S  
Collected Date/Time: 10/26/2015 14:30  
Matrix: Groundwater  
COC Reference: 92657

## Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	125ml Plastic	None	Yes	8.3	IR
1	125ml Plastic	HNO3	Yes	8.3	IR
3	40ml Glass	HCL	Yes	8.3	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Tech	MDL	Flags
<b>Extraction / Prep.</b>								
Metal Digestion	Completed			SW3015A	11/11/15 13:30		CCM	
Metal Digestion	Completed			SW3015A	10/30/15 15:30		CCM	
pH check for VOCs	<2	STD Units		N/A	11/05/15 13:55		ADB	
<b>Inorganics</b>								
Chromium VI, Dissolved	Not detected	mg/L	0.01	SM3500-Cr B	10/27/15 12:55	JKB	0.004	
<b>Metals</b>								
Arsenic, Dissolved	Not detected	mg/L	0.004	E200.8	11/11/15 15:10	CCM	0.00031	
Arsenic	0.0043	mg/L	0.02	E200.8	11/05/15 12:53	CCM	0.0021	b
Chromium, Dissolved	0.00239	mg/L	0.010	E200.8	11/11/15 15:10	CCM	0.00036	b
Chromium	0.0491	mg/L	0.05	E200.8	11/05/15 12:53	CCM	0.0010	b
Copper, Dissolved	Not detected	mg/L	0.010	E200.8	11/11/15 15:10	CCM	0.00065	
Copper	0.01442	mg/L	0.05	E200.8	11/05/15 12:53	CCM	0.00095	b
Lead, Dissolved	Not detected	mg/L	0.006	E200.8	11/11/15 15:10	CCM	0.00071	
Lead	0.00761	mg/L	0.03	E200.8	11/05/15 12:53	CCM	0.00045	b
Selenium, Dissolved	Not detected	mg/L	0.010	E200.8	11/11/15 15:10	CCM	0.0012	
Selenium	0.012	mg/L	0.05	E200.8	11/05/15 12:53	CCM	0.012	b
Zinc, Dissolved	0.035	mg/L	0.010	E200.8	11/11/15 15:10	CCM	0.0017	
Zinc	0.0403	mg/L	0.05	E200.8	11/05/15 12:53	CCM	0.0032	b
<b>Organics - Volatiles</b>								
<b>Volatile Organics - DEQ List</b>								
Diethyl ether	Not detected	ug/L	10	SW8260B	11/05/15 03:55	LBR	0.50	
Acetone	Not detected	ug/L	50	SW8260B	11/05/15 03:55	LBR	0.56	
Methyl iodide	Not detected	ug/L	1	SW8260B	11/05/15 03:55	LBR	0.25	
Carbon disulfide	Not detected	ug/L	5	SW8260B	11/05/15 03:55	LBR	0.24	
tert-Methyl butyl ether (MTBE)	Not detected	ug/L	5	SW8260B	11/05/15 03:55	LBR	0.19	
Acrylonitrile	Not detected	ug/L	2	SW8260B	11/05/15 03:55	LBR	0.57	
2-Butanone (MEK)	Not detected	ug/L	25	SW8260B	11/05/15 03:55	LBR	0.26	
Dichlorodifluoromethane	Not detected	ug/L	5	SW8260B	11/05/15 03:55	LBR	0.50	
Chloromethane	Not detected	ug/L	5	SW8260B	11/05/15 03:55	LBR	0.26	
Vinyl chloride	Not detected	ug/L	1	SW8260B	11/05/15 03:55	LBR	0.31	
Bromomethane	Not detected	ug/L	5	SW8260B	11/05/15 03:55	LBR	0.32	
Chloroethane	Not detected	ug/L	5	SW8260B	11/05/15 03:55	LBR	0.34	
Trichlorofluoromethane	Not detected	ug/L	1	SW8260B	11/05/15 03:55	LBR	0.33	
1,1-Dichloroethene	Not detected	ug/L	1	SW8260B	11/05/15 03:55	LBR	0.27	
Methylene chloride	Not detected	ug/L	5	SW8260B	11/05/15 03:55	LBR	0.29	
trans-1,2-Dichloroethene	Not detected	ug/L	1	SW8260B	11/05/15 03:55	LBR	0.20	
1,1-Dichloroethane	Not detected	ug/L	1	SW8260B	11/05/15 03:55	LBR	0.20	

b-Value detected less than reporting limit, but greater than MDL



# Analytical Laboratory Report

Lab Sample ID: S69136.01 (continued)

Sample Tag: MW 101S

Analysis	Results	Units	RL	Method	Run Date/Time	Tech	MDL	Flags
<b>Organics - Volatiles (continued)</b>								
<b>Volatile Organics - DEQ List (continued)</b>								
cis-1,2-Dichloroethene	Not detected	ug/L	1	SW8260B	11/05/15 03:55	LBR	0.26	
Tetrahydrofuran	Not detected	ug/L	90	SW8260B	11/05/15 03:55	LBR	1.3	
Chloroform	Not detected	ug/L	1	SW8260B	11/05/15 03:55	LBR	0.21	
Bromochloromethane	Not detected	ug/L	1	SW8260B	11/05/15 03:55	LBR	0.38	
1,1,1-Trichloroethane	Not detected	ug/L	1	SW8260B	11/05/15 03:55	LBR	0.28	
4-Methyl-2-pentanone (MIBK)	Not detected	ug/L	50	SW8260B	11/05/15 03:55	LBR	0.14	
2-Hexanone	Not detected	ug/L	50	SW8260B	11/05/15 03:55	LBR	0.29	
Carbon tetrachloride	Not detected	ug/L	1	SW8260B	11/05/15 03:55	LBR	0.20	
Benzene	Not detected	ug/L	1	SW8260B	11/05/15 03:55	LBR	0.20	
1,2-Dichloroethane	Not detected	ug/L	1	SW8260B	11/05/15 03:55	LBR	0.16	
Trichloroethene	3	ug/L	1	SW8260B	11/05/15 03:55	LBR	0.23	
1,2-Dichloropropane	Not detected	ug/L	1	SW8260B	11/05/15 03:55	LBR	0.20	
Bromodichloromethane	Not detected	ug/L	1	SW8260B	11/05/15 03:55	LBR	0.23	
Dibromomethane	Not detected	ug/L	5	SW8260B	11/05/15 03:55	LBR	0.20	
cis-1,3-Dichloropropene	Not detected	ug/L	1	SW8260B	11/05/15 03:55	LBR	0.19	
Toluene	Not detected	ug/L	1	SW8260B	11/05/15 03:55	LBR	0.25	
trans-1,3-Dichloropropene	Not detected	ug/L	1	SW8260B	11/05/15 03:55	LBR	0.25	
1,1,2-Trichloroethane	Not detected	ug/L	1	SW8260B	11/05/15 03:55	LBR	0.28	
Tetrachloroethene	Not detected	ug/L	1	SW8260B	11/05/15 03:55	LBR	0.20	
trans-1,4-Dichloro-2-butene	Not detected	ug/L	1	SW8260B	11/05/15 03:55	LBR	0.20	
Dibromochloromethane	Not detected	ug/L	5	SW8260B	11/05/15 03:55	LBR	0.24	
1,2-Dibromoethane	Not detected	ug/L	1	SW8260B	11/05/15 03:55	LBR	0.30	
Chlorobenzene	Not detected	ug/L	1	SW8260B	11/05/15 03:55	LBR	0.17	
1,1,1,2-Tetrachloroethane	Not detected	ug/L	1	SW8260B	11/05/15 03:55	LBR	0.24	
Ethylbenzene	Not detected	ug/L	1	SW8260B	11/05/15 03:55	LBR	0.26	
p,m-Xylene	Not detected	ug/L	2	SW8260B	11/05/15 03:55	LBR	0.41	
o-Xylene	Not detected	ug/L	1	SW8260B	11/05/15 03:55	LBR	0.25	
Styrene	Not detected	ug/L	1	SW8260B	11/05/15 03:55	LBR	0.18	
Isopropylbenzene	Not detected	ug/L	5	SW8260B	11/05/15 03:55	LBR	0.25	
Bromoform	Not detected	ug/L	1	SW8260B	11/05/15 03:55	LBR	0.22	
1,1,2,2-Tetrachloroethane	Not detected	ug/L	1	SW8260B	11/05/15 03:55	LBR	0.18	
1,2,3-Trichloropropane	Not detected	ug/L	1	SW8260B	11/05/15 03:55	LBR	0.33	
n-Propylbenzene	Not detected	ug/L	1	SW8260B	11/05/15 03:55	LBR	0.23	
Bromobenzene	Not detected	ug/L	1	SW8260B	11/05/15 03:55	LBR	0.27	
1,3,5-Trimethylbenzene	Not detected	ug/L	1	SW8260B	11/05/15 03:55	LBR	0.26	
tert-Butylbenzene	Not detected	ug/L	1	SW8260B	11/05/15 03:55	LBR	0.18	
1,2,4-Trimethylbenzene	Not detected	ug/L	1	SW8260B	11/05/15 03:55	LBR	0.22	
sec-Butylbenzene	Not detected	ug/L	1	SW8260B	11/05/15 03:55	LBR	0.25	
p-Isopropyltoluene	Not detected	ug/L	5	SW8260B	11/05/15 03:55	LBR	0.21	
1,3-Dichlorobenzene	Not detected	ug/L	1	SW8260B	11/05/15 03:55	LBR	0.24	
1,4-Dichlorobenzene	Not detected	ug/L	1	SW8260B	11/05/15 03:55	LBR	0.23	
1,2-Dichlorobenzene	Not detected	ug/L	1	SW8260B	11/05/15 03:55	LBR	0.28	
1,2,3-Trimethylbenzene	Not detected	ug/L	1	SW8260B	11/05/15 03:55	LBR	0.061	
n-Butylbenzene	Not detected	ug/L	1	SW8260B	11/05/15 03:55	LBR	0.22	
Hexachloroethane	Not detected	ug/L	5	SW8260B	11/05/15 03:55	LBR	0.21	
1,2-Dibromo-3-chloropropane	Not detected	ug/L	5	SW8260B	11/05/15 03:55	LBR	0.47	
1,2,4-Trichlorobenzene	Not detected	ug/L	5	SW8260B	11/05/15 03:55	LBR	0.19	
1,2,3-Trichlorobenzene	Not detected	ug/L	5	SW8260B	11/05/15 03:55	LBR	0.20	
Naphthalene	Not detected	ug/L	5	SW8260B	11/05/15 03:55	LBR	0.21	



# Analytical Laboratory Report

Lab Sample ID: S69136.01 (continued)

Sample Tag: MW 101S

Analysis	Results	Units	RL	Method	Run Date/Time	Tech	MDL	Flags
<b>Organics - Volatiles (continued)</b>								
<b>Volatile Organics - DEQ List (continued)</b>								
2-Methylnaphthalene	Not detected	ug/L	5	SW8260B	11/05/15 03:55	LB	0.16	



# Analytical Laboratory Report

Lab Sample ID: S69136.02

Sample Tag: MW 102S

Collected Date/Time: 10/26/2015 14:45

Matrix: Groundwater

COC Reference: 92657

## Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	125ml Plastic	None	Yes	8.3	IR
1	125ml Plastic	HNO3	Yes	8.3	IR
3	40ml Glass	HCL	Yes	8.3	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Tech	MDL	Flags
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### Extraction / Prep.

Metal Digestion	Completed			SW3015A	11/11/15 13:30	CCM
Metal Digestion	Completed			SW3015A	10/30/15 15:30	CCM
pH check for VOCs	<2	STD Units		N/A	11/05/15 13:55	ADB

### Inorganics

Chromium VI, Dissolved	Not detected	mg/L	0.01	SM3500-Cr B	10/27/15 13:05	JKB	0.004
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### Metals

Arsenic, Dissolved	Not detected	mg/L	0.004	E200.8	11/11/15 15:13	CCM	0.00031
Arsenic	0.02	mg/L	0.02	E200.8	11/05/15 12:55	CCM	0.0021
Chromium, Dissolved	0.00710	mg/L	0.010	E200.8	11/11/15 15:13	CCM	0.00036
Chromium	0.09	mg/L	0.05	E200.8	11/05/15 12:55	CCM	0.0010
Copper, Dissolved	Not detected	mg/L	0.010	E200.8	11/11/15 15:13	CCM	0.00065
Copper	0.03744	mg/L	0.05	E200.8	11/05/15 12:55	CCM	0.00095
Lead, Dissolved	Not detected	mg/L	0.006	E200.8	11/11/15 15:13	CCM	0.00071
Lead	0.02045	mg/L	0.03	E200.8	11/05/15 12:55	CCM	0.00045
Selenium, Dissolved	0.0013	mg/L	0.010	E200.8	11/11/15 15:13	CCM	0.0012
Selenium	0.016	mg/L	0.05	E200.8	11/05/15 12:55	CCM	0.012
Zinc, Dissolved	0.111	mg/L	0.010	E200.8	11/11/15 15:13	CCM	0.0017
Zinc	0.10	mg/L	0.05	E200.8	11/05/15 12:55	CCM	0.0032

### Organics - Volatiles

#### Volatile Organics - DEQ List

Diethyl ether	Not detected	ug/L	10	SW8260B	11/05/15 04:17	LBR	0.50
Acetone	Not detected	ug/L	50	SW8260B	11/05/15 04:17	LBR	0.56
Methyl iodide	Not detected	ug/L	1	SW8260B	11/05/15 04:17	LBR	0.25
Carbon disulfide	Not detected	ug/L	5	SW8260B	11/05/15 04:17	LBR	0.24
tert-Methyl butyl ether (MTBE)	Not detected	ug/L	5	SW8260B	11/05/15 04:17	LBR	0.19
Acrylonitrile	Not detected	ug/L	2	SW8260B	11/05/15 04:17	LBR	0.57
2-Butanone (MEK)	Not detected	ug/L	25	SW8260B	11/05/15 04:17	LBR	0.26
Dichlorodifluoromethane	Not detected	ug/L	5	SW8260B	11/05/15 04:17	LBR	0.50
Chloromethane	Not detected	ug/L	5	SW8260B	11/05/15 04:17	LBR	0.26
Vinyl chloride	Not detected	ug/L	1	SW8260B	11/05/15 04:17	LBR	0.31
Bromomethane	Not detected	ug/L	5	SW8260B	11/05/15 04:17	LBR	0.32
Chloroethane	Not detected	ug/L	5	SW8260B	11/05/15 04:17	LBR	0.34
Trichlorofluoromethane	Not detected	ug/L	1	SW8260B	11/05/15 04:17	LBR	0.33
1,1-Dichloroethene	Not detected	ug/L	1	SW8260B	11/05/15 04:17	LBR	0.27
Methylene chloride	Not detected	ug/L	5	SW8260B	11/05/15 04:17	LBR	0.29
trans-1,2-Dichloroethene	Not detected	ug/L	1	SW8260B	11/05/15 04:17	LBR	0.20
1,1-Dichloroethane	Not detected	ug/L	1	SW8260B	11/05/15 04:17	LBR	0.20

b-Value detected less than reporting limit, but greater than MDL



# Analytical Laboratory Report

Lab Sample ID: S69136.02 (continued)

Sample Tag: MW 102S

Analysis	Results	Units	RL	Method	Run Date/Time	Tech	MDL	Flags
<b>Organics - Volatiles (continued)</b>								
<b>Volatile Organics - DEQ List (continued)</b>								
cis-1,2-Dichloroethene	Not detected	ug/L	1	SW8260B	11/05/15 04:17	LBR	0.26	
Tetrahydrofuran	Not detected	ug/L	90	SW8260B	11/05/15 04:17	LBR	1.3	
Chloroform	Not detected	ug/L	1	SW8260B	11/05/15 04:17	LBR	0.21	
Bromochloromethane	Not detected	ug/L	1	SW8260B	11/05/15 04:17	LBR	0.38	
1,1,1-Trichloroethane	Not detected	ug/L	1	SW8260B	11/05/15 04:17	LBR	0.28	
4-Methyl-2-pentanone (MIBK)	Not detected	ug/L	50	SW8260B	11/05/15 04:17	LBR	0.14	
2-Hexanone	Not detected	ug/L	50	SW8260B	11/05/15 04:17	LBR	0.29	
Carbon tetrachloride	Not detected	ug/L	1	SW8260B	11/05/15 04:17	LBR	0.20	
Benzene	Not detected	ug/L	1	SW8260B	11/05/15 04:17	LBR	0.20	
1,2-Dichloroethane	Not detected	ug/L	1	SW8260B	11/05/15 04:17	LBR	0.16	
Trichloroethene	0.68	ug/L	1	SW8260B	11/05/15 04:17	LBR	0.23	J
1,2-Dichloropropane	Not detected	ug/L	1	SW8260B	11/05/15 04:17	LBR	0.20	
Bromodichloromethane	Not detected	ug/L	1	SW8260B	11/05/15 04:17	LBR	0.23	
Dibromomethane	Not detected	ug/L	5	SW8260B	11/05/15 04:17	LBR	0.20	
cis-1,3-Dichloropropene	Not detected	ug/L	1	SW8260B	11/05/15 04:17	LBR	0.19	
Toluene	Not detected	ug/L	1	SW8260B	11/05/15 04:17	LBR	0.25	
trans-1,3-Dichloropropene	Not detected	ug/L	1	SW8260B	11/05/15 04:17	LBR	0.25	
1,1,2-Trichloroethane	Not detected	ug/L	1	SW8260B	11/05/15 04:17	LBR	0.28	
Tetrachloroethene	Not detected	ug/L	1	SW8260B	11/05/15 04:17	LBR	0.20	
trans-1,4-Dichloro-2-butene	Not detected	ug/L	1	SW8260B	11/05/15 04:17	LBR	0.20	
Dibromochloromethane	Not detected	ug/L	5	SW8260B	11/05/15 04:17	LBR	0.24	
1,2-Dibromoethane	Not detected	ug/L	1	SW8260B	11/05/15 04:17	LBR	0.30	
Chlorobenzene	Not detected	ug/L	1	SW8260B	11/05/15 04:17	LBR	0.17	
1,1,1,2-Tetrachloroethane	Not detected	ug/L	1	SW8260B	11/05/15 04:17	LBR	0.24	
Ethylbenzene	Not detected	ug/L	1	SW8260B	11/05/15 04:17	LBR	0.26	
p,m-Xylene	Not detected	ug/L	2	SW8260B	11/05/15 04:17	LBR	0.41	
o-Xylene	Not detected	ug/L	1	SW8260B	11/05/15 04:17	LBR	0.25	
Styrene	Not detected	ug/L	1	SW8260B	11/05/15 04:17	LBR	0.18	
Isopropylbenzene	Not detected	ug/L	5	SW8260B	11/05/15 04:17	LBR	0.25	
Bromoform	Not detected	ug/L	1	SW8260B	11/05/15 04:17	LBR	0.22	
1,1,2,2-Tetrachloroethane	Not detected	ug/L	1	SW8260B	11/05/15 04:17	LBR	0.18	
1,2,3-Trichloropropane	Not detected	ug/L	1	SW8260B	11/05/15 04:17	LBR	0.33	
n-Propylbenzene	Not detected	ug/L	1	SW8260B	11/05/15 04:17	LBR	0.23	
Bromobenzene	Not detected	ug/L	1	SW8260B	11/05/15 04:17	LBR	0.27	
1,3,5-Trimethylbenzene	Not detected	ug/L	1	SW8260B	11/05/15 04:17	LBR	0.26	
tert-Butylbenzene	Not detected	ug/L	1	SW8260B	11/05/15 04:17	LBR	0.18	
1,2,4-Trimethylbenzene	Not detected	ug/L	1	SW8260B	11/05/15 04:17	LBR	0.22	
sec-Butylbenzene	Not detected	ug/L	1	SW8260B	11/05/15 04:17	LBR	0.25	
p-Isopropyltoluene	Not detected	ug/L	5	SW8260B	11/05/15 04:17	LBR	0.21	
1,3-Dichlorobenzene	Not detected	ug/L	1	SW8260B	11/05/15 04:17	LBR	0.24	
1,4-Dichlorobenzene	Not detected	ug/L	1	SW8260B	11/05/15 04:17	LBR	0.23	
1,2-Dichlorobenzene	Not detected	ug/L	1	SW8260B	11/05/15 04:17	LBR	0.28	
1,2,3-Trimethylbenzene	Not detected	ug/L	1	SW8260B	11/05/15 04:17	LBR	0.061	
n-Butylbenzene	Not detected	ug/L	1	SW8260B	11/05/15 04:17	LBR	0.22	
Hexachloroethane	Not detected	ug/L	5	SW8260B	11/05/15 04:17	LBR	0.21	
1,2-Dibromo-3-chloropropane	Not detected	ug/L	5	SW8260B	11/05/15 04:17	LBR	0.47	
1,2,4-Trichlorobenzene	Not detected	ug/L	5	SW8260B	11/05/15 04:17	LBR	0.19	
1,2,3-Trichlorobenzene	Not detected	ug/L	5	SW8260B	11/05/15 04:17	LBR	0.20	

J-Estimated value less than reporting limit, but greater than MDL



# Analytical Laboratory Report

Lab Sample ID: S69136.02 (continued)

Sample Tag: MW 102S

Analysis	Results	Units	RL	Method	Run Date/Time	Tech	MDL	Flags
<b>Organics - Volatiles (continued)</b>								
<b>Volatile Organics - DEQ List (continued)</b>								
Naphthalene	Not detected	ug/L	5	SW8260B	11/05/15 04:17	LBR	0.21	
2-Methylnaphthalene	Not detected	ug/L	5	SW8260B	11/05/15 04:17	LBR	0.16	



# Analytical Laboratory Report

Lab Sample ID: S69136.03

Sample Tag: MW 104S

Collected Date/Time: 10/26/2015 13:45

Matrix: Groundwater

COC Reference: 92657

## Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	125ml Plastic	None	Yes	8.3	IR
1	125ml Plastic	HNO3	Yes	8.3	IR
2	40ml Glass	HCL	Yes	8.3	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Tech	MDL	Flags
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### Extraction / Prep.

Metal Digestion	Completed			SW3015A	11/11/15 13:30	CCM
Metal Digestion	Completed			SW3015A	10/30/15 15:30	CCM
pH check for VOCs	<2	STD Units		N/A	11/05/15 13:55	ADB

### Inorganics

Chromium VI, Dissolved	Not detected	mg/L	0.02	SM3500-Cr B	10/27/15 13:20	JKB	0.01
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### Metals

Arsenic, Dissolved	Not detected	mg/L	0.004	E200.8	11/11/15 15:16	CCM	0.00031
Arsenic	0.0136	mg/L	0.02	E200.8	11/05/15 12:56	CCM	0.0021
Chromium, Dissolved	Not detected	mg/L	0.010	E200.8	11/11/15 15:16	CCM	0.00036
Chromium	10.0	mg/L	0.05	E200.8	11/05/15 12:56	CCM	0.0010
Copper, Dissolved	0.00104	mg/L	0.010	E200.8	11/11/15 15:16	CCM	0.00065
Copper	0.21	mg/L	0.05	E200.8	11/05/15 12:56	CCM	0.00095
Lead, Dissolved	0.00157	mg/L	0.006	E200.8	11/11/15 15:16	CCM	0.00071
Lead	0.02978	mg/L	0.03	E200.8	11/05/15 12:56	CCM	0.00045
Selenium, Dissolved	0.0019	mg/L	0.010	E200.8	11/11/15 15:16	CCM	0.0012
Selenium	0.015	mg/L	0.05	E200.8	11/05/15 12:56	CCM	0.012
Zinc, Dissolved	0.042	mg/L	0.010	E200.8	11/11/15 15:16	CCM	0.0017
Zinc	0.16	mg/L	0.05	E200.8	11/05/15 12:56	CCM	0.0032

### Organics - Volatiles

#### Volatile Organics - DEQ List

Diethyl ether	Not detected	ug/L	10	SW8260B	11/05/15 04:39	LBR	0.50
Acetone	Not detected	ug/L	50	SW8260B	11/05/15 04:39	LBR	0.56
Methyl iodide	Not detected	ug/L	1	SW8260B	11/05/15 04:39	LBR	0.25
Carbon disulfide	Not detected	ug/L	5	SW8260B	11/05/15 04:39	LBR	0.24
tert-Methyl butyl ether (MTBE)	Not detected	ug/L	5	SW8260B	11/05/15 04:39	LBR	0.19
Acrylonitrile	Not detected	ug/L	2	SW8260B	11/05/15 04:39	LBR	0.57
2-Butanone (MEK)	Not detected	ug/L	25	SW8260B	11/05/15 04:39	LBR	0.26
Dichlorodifluoromethane	Not detected	ug/L	5	SW8260B	11/05/15 04:39	LBR	0.50
Chloromethane	Not detected	ug/L	5	SW8260B	11/05/15 04:39	LBR	0.26
Vinyl chloride	Not detected	ug/L	1	SW8260B	11/05/15 04:39	LBR	0.31
Bromomethane	Not detected	ug/L	5	SW8260B	11/05/15 04:39	LBR	0.32
Chloroethane	Not detected	ug/L	5	SW8260B	11/05/15 04:39	LBR	0.34
Trichlorofluoromethane	Not detected	ug/L	1	SW8260B	11/05/15 04:39	LBR	0.33
1,1-Dichloroethene	Not detected	ug/L	1	SW8260B	11/05/15 04:39	LBR	0.27
Methylene chloride	Not detected	ug/L	5	SW8260B	11/05/15 04:39	LBR	0.29
trans-1,2-Dichloroethene	Not detected	ug/L	1	SW8260B	11/05/15 04:39	LBR	0.20
1,1-Dichloroethane	Not detected	ug/L	1	SW8260B	11/05/15 04:39	LBR	0.20

b-Value detected less than reporting limit, but greater than MDL



# Analytical Laboratory Report

Lab Sample ID: S69136.03 (continued)

Sample Tag: MW 104S

Analysis	Results	Units	RL	Method	Run Date/Time	Tech	MDL	Flags
<b>Organics - Volatiles (continued)</b>								
<b>Volatile Organics - DEQ List (continued)</b>								
cis-1,2-Dichloroethene	Not detected	ug/L	1	SW8260B	11/05/15 04:39	LBR	0.26	
Tetrahydrofuran	Not detected	ug/L	90	SW8260B	11/05/15 04:39	LBR	1.3	
Chloroform	2	ug/L	1	SW8260B	11/05/15 04:39	LBR	0.21	
Bromochloromethane	Not detected	ug/L	1	SW8260B	11/05/15 04:39	LBR	0.38	
1,1,1-Trichloroethane	Not detected	ug/L	1	SW8260B	11/05/15 04:39	LBR	0.28	
4-Methyl-2-pentanone (MIBK)	Not detected	ug/L	50	SW8260B	11/05/15 04:39	LBR	0.14	
2-Hexanone	Not detected	ug/L	50	SW8260B	11/05/15 04:39	LBR	0.29	
Carbon tetrachloride	Not detected	ug/L	1	SW8260B	11/05/15 04:39	LBR	0.20	
Benzene	Not detected	ug/L	1	SW8260B	11/05/15 04:39	LBR	0.20	
1,2-Dichloroethane	Not detected	ug/L	1	SW8260B	11/05/15 04:39	LBR	0.16	
Trichloroethene	0.68	ug/L	1	SW8260B	11/05/15 04:39	LBR	0.23	J
1,2-Dichloropropane	Not detected	ug/L	1	SW8260B	11/05/15 04:39	LBR	0.20	
Bromodichloromethane	0.65	ug/L	1	SW8260B	11/05/15 04:39	LBR	0.23	J
Dibromomethane	Not detected	ug/L	5	SW8260B	11/05/15 04:39	LBR	0.20	
cis-1,3-Dichloropropene	Not detected	ug/L	1	SW8260B	11/05/15 04:39	LBR	0.19	
Toluene	Not detected	ug/L	1	SW8260B	11/05/15 04:39	LBR	0.25	
trans-1,3-Dichloropropene	Not detected	ug/L	1	SW8260B	11/05/15 04:39	LBR	0.25	
1,1,2-Trichloroethane	Not detected	ug/L	1	SW8260B	11/05/15 04:39	LBR	0.28	
Tetrachloroethene	Not detected	ug/L	1	SW8260B	11/05/15 04:39	LBR	0.20	
trans-1,4-Dichloro-2-butene	Not detected	ug/L	1	SW8260B	11/05/15 04:39	LBR	0.20	
Dibromochloromethane	Not detected	ug/L	5	SW8260B	11/05/15 04:39	LBR	0.24	
1,2-Dibromoethane	Not detected	ug/L	1	SW8260B	11/05/15 04:39	LBR	0.30	
Chlorobenzene	Not detected	ug/L	1	SW8260B	11/05/15 04:39	LBR	0.17	
1,1,1,2-Tetrachloroethane	Not detected	ug/L	1	SW8260B	11/05/15 04:39	LBR	0.24	
Ethylbenzene	Not detected	ug/L	1	SW8260B	11/05/15 04:39	LBR	0.26	
p,m-Xylene	Not detected	ug/L	2	SW8260B	11/05/15 04:39	LBR	0.41	
o-Xylene	Not detected	ug/L	1	SW8260B	11/05/15 04:39	LBR	0.25	
Styrene	Not detected	ug/L	1	SW8260B	11/05/15 04:39	LBR	0.18	
Isopropylbenzene	Not detected	ug/L	5	SW8260B	11/05/15 04:39	LBR	0.25	
Bromoform	Not detected	ug/L	1	SW8260B	11/05/15 04:39	LBR	0.22	
1,1,2,2-Tetrachloroethane	Not detected	ug/L	1	SW8260B	11/05/15 04:39	LBR	0.18	
1,2,3-Trichloropropane	Not detected	ug/L	1	SW8260B	11/05/15 04:39	LBR	0.33	
n-Propylbenzene	Not detected	ug/L	1	SW8260B	11/05/15 04:39	LBR	0.23	
Bromobenzene	Not detected	ug/L	1	SW8260B	11/05/15 04:39	LBR	0.27	
1,3,5-Trimethylbenzene	Not detected	ug/L	1	SW8260B	11/05/15 04:39	LBR	0.26	
tert-Butylbenzene	Not detected	ug/L	1	SW8260B	11/05/15 04:39	LBR	0.18	
1,2,4-Trimethylbenzene	Not detected	ug/L	1	SW8260B	11/05/15 04:39	LBR	0.22	
sec-Butylbenzene	Not detected	ug/L	1	SW8260B	11/05/15 04:39	LBR	0.25	
p-Isopropyltoluene	Not detected	ug/L	5	SW8260B	11/05/15 04:39	LBR	0.21	
1,3-Dichlorobenzene	Not detected	ug/L	1	SW8260B	11/05/15 04:39	LBR	0.24	
1,4-Dichlorobenzene	Not detected	ug/L	1	SW8260B	11/05/15 04:39	LBR	0.23	
1,2-Dichlorobenzene	Not detected	ug/L	1	SW8260B	11/05/15 04:39	LBR	0.28	
1,2,3-Trimethylbenzene	Not detected	ug/L	1	SW8260B	11/05/15 04:39	LBR	0.061	
n-Butylbenzene	Not detected	ug/L	1	SW8260B	11/05/15 04:39	LBR	0.22	
Hexachloroethane	Not detected	ug/L	5	SW8260B	11/05/15 04:39	LBR	0.21	
1,2-Dibromo-3-chloropropane	Not detected	ug/L	5	SW8260B	11/05/15 04:39	LBR	0.47	
1,2,4-Trichlorobenzene	Not detected	ug/L	5	SW8260B	11/05/15 04:39	LBR	0.19	
1,2,3-Trichlorobenzene	Not detected	ug/L	5	SW8260B	11/05/15 04:39	LBR	0.20	

J-Estimated value less than reporting limit, but greater than MDL



# Analytical Laboratory Report

Lab Sample ID: S69136.03 (continued)

Sample Tag: MW 104S

Analysis	Results	Units	RL	Method	Run Date/Time	Tech	MDL	Flags
<b>Organics - Volatiles (continued)</b>								
<b>Volatile Organics - DEQ List (continued)</b>								
Naphthalene	Not detected	ug/L	5	SW8260B	11/05/15 04:39	LBR	0.21	
2-Methylnaphthalene	Not detected	ug/L	5	SW8260B	11/05/15 04:39	LBR	0.16	



# Analytical Laboratory Report

Lab Sample ID: S69136.04  
Sample Tag: MW 105S  
Collected Date/Time: 10/26/2015 13:30  
Matrix: Groundwater  
COC Reference: 92657

## Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	125ml Plastic	None	Yes	8.3	IR
1	125ml Plastic	HNO3	Yes	8.3	IR
2	40ml Glass	HCL	Yes	8.3	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Tech	MDL	Flags
<b>Extraction / Prep.</b>								
Metal Digestion	Completed			SW3015A	11/11/15 13:30		CCM	
Metal Digestion	Completed			SW3015A	10/30/15 15:30		CCM	
pH check for VOCs	>2	STD Units		N/A	11/05/15 13:55		ADB	
<b>Inorganics</b>								
Chromium VI, Dissolved	Not detected	mg/L	0.02	SM3500-Cr B	10/27/15 13:25	JKB	0.01	
<b>Metals</b>								
Arsenic, Dissolved	Not detected	mg/L	0.004	E200.8	11/11/15 15:31		CCM 0.00031	
Arsenic	0.07	mg/L	0.02	E200.8	11/05/15 12:58		CCM 0.0021	
Chromium, Dissolved	0.023	mg/L	0.010	E200.8	11/11/15 15:31		CCM 0.00036	
Chromium	16.2	mg/L	0.05	E200.8	11/05/15 12:58		CCM 0.0010	
Copper, Dissolved	0.00189	mg/L	0.010	E200.8	11/11/15 15:31		CCM 0.00065	b
Copper	0.82	mg/L	0.05	E200.8	11/05/15 12:58		CCM 0.00095	
Lead, Dissolved	Not detected	mg/L	0.006	E200.8	11/11/15 15:31		CCM 0.00071	
Lead	0.18	mg/L	0.03	E200.8	11/05/15 12:58		CCM 0.00045	
Selenium, Dissolved	0.0099	mg/L	0.010	E200.8	11/11/15 15:31		CCM 0.0012	b
Selenium	0.017	mg/L	0.05	E200.8	11/05/15 12:58		CCM 0.012	b
Zinc, Dissolved	0.024	mg/L	0.010	E200.8	11/11/15 15:31		CCM 0.0017	
Zinc	0.80	mg/L	0.05	E200.8	11/05/15 12:58		CCM 0.0032	
<b>Organics - Volatiles</b>								
<b>Volatile Organics - DEQ List</b>								
Diethyl ether	Not detected	ug/L	10	SW8260B	11/05/15 05:01		LBR 0.50	
Acetone	Not detected	ug/L	50	SW8260B	11/05/15 05:01		LBR 0.56	
Methyl iodide	Not detected	ug/L	1	SW8260B	11/05/15 05:01		LBR 0.25	
Carbon disulfide	Not detected	ug/L	5	SW8260B	11/05/15 05:01		LBR 0.24	
tert-Methyl butyl ether (MTBE)	Not detected	ug/L	5	SW8260B	11/05/15 05:01		LBR 0.19	
Acrylonitrile	Not detected	ug/L	2	SW8260B	11/05/15 05:01		LBR 0.57	
2-Butanone (MEK)	Not detected	ug/L	25	SW8260B	11/05/15 05:01		LBR 0.26	
Dichlorodifluoromethane	Not detected	ug/L	5	SW8260B	11/05/15 05:01		LBR 0.50	
Chloromethane	Not detected	ug/L	5	SW8260B	11/05/15 05:01		LBR 0.26	
Vinyl chloride	Not detected	ug/L	1	SW8260B	11/05/15 05:01		LBR 0.31	
Bromomethane	Not detected	ug/L	5	SW8260B	11/05/15 05:01		LBR 0.32	
Chloroethane	Not detected	ug/L	5	SW8260B	11/05/15 05:01		LBR 0.34	
Trichlorofluoromethane	Not detected	ug/L	1	SW8260B	11/05/15 05:01		LBR 0.33	
1,1-Dichloroethene	Not detected	ug/L	1	SW8260B	11/05/15 05:01		LBR 0.27	
Methylene chloride	Not detected	ug/L	5	SW8260B	11/05/15 05:01		LBR 0.29	
trans-1,2-Dichloroethene	Not detected	ug/L	1	SW8260B	11/05/15 05:01		LBR 0.20	
1,1-Dichloroethane	Not detected	ug/L	1	SW8260B	11/05/15 05:01		LBR 0.20	

b-Value detected less than reporting limit, but greater than MDL



# Analytical Laboratory Report

Lab Sample ID: S69136.04 (continued)

Sample Tag: MW 105S

Analysis	Results	Units	RL	Method	Run Date/Time	Tech	MDL	Flags
<b>Organics - Volatiles (continued)</b>								
<b>Volatile Organics - DEQ List (continued)</b>								
cis-1,2-Dichloroethene	Not detected	ug/L	1	SW8260B	11/05/15 05:01	LBR	0.26	
Tetrahydrofuran	Not detected	ug/L	90	SW8260B	11/05/15 05:01	LBR	1.3	
Chloroform	Not detected	ug/L	1	SW8260B	11/05/15 05:01	LBR	0.21	
Bromochloromethane	Not detected	ug/L	1	SW8260B	11/05/15 05:01	LBR	0.38	
1,1,1-Trichloroethane	Not detected	ug/L	1	SW8260B	11/05/15 05:01	LBR	0.28	
4-Methyl-2-pentanone (MIBK)	Not detected	ug/L	50	SW8260B	11/05/15 05:01	LBR	0.14	
2-Hexanone	Not detected	ug/L	50	SW8260B	11/05/15 05:01	LBR	0.29	
Carbon tetrachloride	Not detected	ug/L	1	SW8260B	11/05/15 05:01	LBR	0.20	
Benzene	0.26	ug/L	1	SW8260B	11/05/15 05:01	LBR	0.20	J
1,2-Dichloroethane	Not detected	ug/L	1	SW8260B	11/05/15 05:01	LBR	0.16	
Trichloroethene	Not detected	ug/L	1	SW8260B	11/05/15 05:01	LBR	0.23	
1,2-Dichloropropane	Not detected	ug/L	1	SW8260B	11/05/15 05:01	LBR	0.20	
Bromodichloromethane	Not detected	ug/L	1	SW8260B	11/05/15 05:01	LBR	0.23	
Dibromomethane	Not detected	ug/L	5	SW8260B	11/05/15 05:01	LBR	0.20	
cis-1,3-Dichloropropene	Not detected	ug/L	1	SW8260B	11/05/15 05:01	LBR	0.19	
Toluene	0.58	ug/L	1	SW8260B	11/05/15 05:01	LBR	0.25	J
trans-1,3-Dichloropropene	Not detected	ug/L	1	SW8260B	11/05/15 05:01	LBR	0.25	
1,1,2-Trichloroethane	Not detected	ug/L	1	SW8260B	11/05/15 05:01	LBR	0.28	
Tetrachloroethene	58	ug/L	1	SW8260B	11/05/15 05:01	LBR	0.20	
trans-1,4-Dichloro-2-butene	Not detected	ug/L	1	SW8260B	11/05/15 05:01	LBR	0.20	
Dibromochloromethane	Not detected	ug/L	5	SW8260B	11/05/15 05:01	LBR	0.24	
1,2-Dibromoethane	Not detected	ug/L	1	SW8260B	11/05/15 05:01	LBR	0.30	
Chlorobenzene	Not detected	ug/L	1	SW8260B	11/05/15 05:01	LBR	0.17	
1,1,1,2-Tetrachloroethane	Not detected	ug/L	1	SW8260B	11/05/15 05:01	LBR	0.24	
Ethylbenzene	Not detected	ug/L	1	SW8260B	11/05/15 05:01	LBR	0.26	
p,m-Xylene	Not detected	ug/L	2	SW8260B	11/05/15 05:01	LBR	0.41	
o-Xylene	Not detected	ug/L	1	SW8260B	11/05/15 05:01	LBR	0.25	
Styrene	Not detected	ug/L	1	SW8260B	11/05/15 05:01	LBR	0.18	
Isopropylbenzene	Not detected	ug/L	5	SW8260B	11/05/15 05:01	LBR	0.25	
Bromoform	Not detected	ug/L	1	SW8260B	11/05/15 05:01	LBR	0.22	
1,1,2,2-Tetrachloroethane	Not detected	ug/L	1	SW8260B	11/05/15 05:01	LBR	0.18	
1,2,3-Trichloropropane	Not detected	ug/L	1	SW8260B	11/05/15 05:01	LBR	0.33	
n-Propylbenzene	Not detected	ug/L	1	SW8260B	11/05/15 05:01	LBR	0.23	
Bromobenzene	Not detected	ug/L	1	SW8260B	11/05/15 05:01	LBR	0.27	
1,3,5-Trimethylbenzene	Not detected	ug/L	1	SW8260B	11/05/15 05:01	LBR	0.26	
tert-Butylbenzene	Not detected	ug/L	1	SW8260B	11/05/15 05:01	LBR	0.18	
1,2,4-Trimethylbenzene	Not detected	ug/L	1	SW8260B	11/05/15 05:01	LBR	0.22	
sec-Butylbenzene	Not detected	ug/L	1	SW8260B	11/05/15 05:01	LBR	0.25	
p-Isopropyltoluene	Not detected	ug/L	5	SW8260B	11/05/15 05:01	LBR	0.21	
1,3-Dichlorobenzene	Not detected	ug/L	1	SW8260B	11/05/15 05:01	LBR	0.24	
1,4-Dichlorobenzene	Not detected	ug/L	1	SW8260B	11/05/15 05:01	LBR	0.23	
1,2-Dichlorobenzene	Not detected	ug/L	1	SW8260B	11/05/15 05:01	LBR	0.28	
1,2,3-Trimethylbenzene	Not detected	ug/L	1	SW8260B	11/05/15 05:01	LBR	0.061	
n-Butylbenzene	Not detected	ug/L	1	SW8260B	11/05/15 05:01	LBR	0.22	
Hexachloroethane	Not detected	ug/L	5	SW8260B	11/05/15 05:01	LBR	0.21	
1,2-Dibromo-3-chloropropane	Not detected	ug/L	5	SW8260B	11/05/15 05:01	LBR	0.47	
1,2,4-Trichlorobenzene	Not detected	ug/L	5	SW8260B	11/05/15 05:01	LBR	0.19	
1,2,3-Trichlorobenzene	Not detected	ug/L	5	SW8260B	11/05/15 05:01	LBR	0.20	

J-Estimated value less than reporting limit, but greater than MDL



# Analytical Laboratory Report

Lab Sample ID: S69136.04 (continued)

Sample Tag: MW 105S

Analysis	Results	Units	RL	Method	Run Date/Time	Tech	MDL	Flags
<b>Organics - Volatiles (continued)</b>								
<b>Volatile Organics - DEQ List (continued)</b>								
Naphthalene	Not detected	ug/L	5	SW8260B	11/05/15 05:01	LBR	0.21	
2-Methylnaphthalene	Not detected	ug/L	5	SW8260B	11/05/15 05:01	LBR	0.16	



# Analytical Laboratory Report

Lab Sample ID: S69136.05

Sample Tag: MW 112S

Collected Date/Time: 10/26/2015 15:15

Matrix: Groundwater

COC Reference: 92657

## Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	125ml Plastic	None	Yes	8.3	IR
1	125ml Plastic	HNO3	Yes	8.3	IR
2	40ml Glass	HCL	Yes	8.3	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Tech	MDL	Flags
<b>Extraction / Prep.</b>								
Metal Digestion	Completed			SW3015A	11/11/15 13:30		CCM	
Metal Digestion	Completed			SW3015A	10/30/15 15:30		CCM	
pH check for VOCs	<2	STD Units		N/A	11/05/15 13:55		ADB	
<b>Inorganics</b>								
Chromium VI, Dissolved	Not detected	mg/L	0.02	SM3500-Cr B	10/27/15 13:30	JKB	0.01	
<b>Metals</b>								
Arsenic, Dissolved	0.004	mg/L	0.004	E200.8	11/11/15 15:19		CCM 0.00031	
Arsenic	0.235	mg/L	0.02	E200.8	11/05/15 13:00		CCM 0.0021	
Chromium, Dissolved	0.00057	mg/L	0.010	E200.8	11/11/15 15:19		CCM 0.00036	b
Chromium	0.15	mg/L	0.05	E200.8	11/05/15 13:00		CCM 0.0010	
Copper, Dissolved	0.115	mg/L	0.010	E200.8	11/11/15 15:19		CCM 0.00065	
Copper	0.20	mg/L	0.05	E200.8	11/05/15 13:00		CCM 0.00095	
Lead, Dissolved	0.00127	mg/L	0.006	E200.8	11/11/15 15:19		CCM 0.00071	b
Lead	0.10	mg/L	0.03	E200.8	11/05/15 13:00		CCM 0.00045	
Selenium, Dissolved	0.0012	mg/L	0.010	E200.8	11/11/15 15:19		CCM 0.0012	b
Selenium	Not detected	mg/L	0.05	E200.8	11/05/15 13:00		CCM 0.012	
Zinc, Dissolved	0.101	mg/L	0.010	E200.8	11/11/15 15:19		CCM 0.0017	
Zinc	0.45	mg/L	0.05	E200.8	11/05/15 13:00		CCM 0.0032	
<b>Organics - Volatiles</b>								
<b>Volatile Organics - DEQ List</b>								
Diethyl ether	Not detected	ug/L	10	SW8260B	11/05/15 05:23		LBR 0.50	
Acetone	Not detected	ug/L	50	SW8260B	11/05/15 05:23		LBR 0.56	
Methyl iodide	Not detected	ug/L	1	SW8260B	11/05/15 05:23		LBR 0.25	
Carbon disulfide	Not detected	ug/L	5	SW8260B	11/05/15 05:23		LBR 0.24	
tert-Methyl butyl ether (MTBE)	Not detected	ug/L	5	SW8260B	11/05/15 05:23		LBR 0.19	
Acrylonitrile	Not detected	ug/L	2	SW8260B	11/05/15 05:23		LBR 0.57	
2-Butanone (MEK)	3.04	ug/L	25	SW8260B	11/05/15 05:23		LBR 0.26	J
Dichlorodifluoromethane	Not detected	ug/L	5	SW8260B	11/05/15 05:23		LBR 0.50	
Chloromethane	Not detected	ug/L	5	SW8260B	11/05/15 05:23		LBR 0.26	
Vinyl chloride	2	ug/L	1	SW8260B	11/05/15 05:23		LBR 0.31	
Bromomethane	Not detected	ug/L	5	SW8260B	11/05/15 05:23		LBR 0.32	
Chloroethane	0.90	ug/L	5	SW8260B	11/05/15 05:23		LBR 0.34	J
Trichlorofluoromethane	Not detected	ug/L	1	SW8260B	11/05/15 05:23		LBR 0.33	
1,1-Dichloroethene	Not detected	ug/L	1	SW8260B	11/05/15 05:23		LBR 0.27	
Methylene chloride	Not detected	ug/L	5	SW8260B	11/05/15 05:23		LBR 0.29	
trans-1,2-Dichloroethene	Not detected	ug/L	1	SW8260B	11/05/15 05:23		LBR 0.20	

b-Value detected less than reporting limit, but greater than MDL

J-Estimated value less than reporting limit, but greater than MDL



# Analytical Laboratory Report

Lab Sample ID: S69136.05 (continued)

Sample Tag: MW 112S

Analysis	Results	Units	RL	Method	Run Date/Time	Tech	MDL	Flags
<b>Organics - Volatiles (continued)</b>								
<b>Volatile Organics - DEQ List (continued)</b>								
1,1-Dichloroethane	0.76	ug/L	1	SW8260B	11/05/15 05:23	LBR	0.20	J
cis-1,2-Dichloroethene	1	ug/L	1	SW8260B	11/05/15 05:23	LBR	0.26	
Tetrahydrofuran	Not detected	ug/L	90	SW8260B	11/05/15 05:23	LBR	1.3	
Chloroform	Not detected	ug/L	1	SW8260B	11/05/15 05:23	LBR	0.21	
Bromochloromethane	Not detected	ug/L	1	SW8260B	11/05/15 05:23	LBR	0.38	
1,1,1-Trichloroethane	Not detected	ug/L	1	SW8260B	11/05/15 05:23	LBR	0.28	
4-Methyl-2-pentanone (MIBK)	1.09	ug/L	50	SW8260B	11/05/15 05:23	LBR	0.14	J
2-Hexanone	1.64	ug/L	50	SW8260B	11/05/15 05:23	LBR	0.29	J
Carbon tetrachloride	Not detected	ug/L	1	SW8260B	11/05/15 05:23	LBR	0.20	
Benzene	0.20	ug/L	1	SW8260B	11/05/15 05:23	LBR	0.20	J
1,2-Dichloroethane	Not detected	ug/L	1	SW8260B	11/05/15 05:23	LBR	0.16	
Trichloroethene	Not detected	ug/L	1	SW8260B	11/05/15 05:23	LBR	0.23	
1,2-Dichloropropane	Not detected	ug/L	1	SW8260B	11/05/15 05:23	LBR	0.20	
Bromodichloromethane	Not detected	ug/L	1	SW8260B	11/05/15 05:23	LBR	0.23	
Dibromomethane	Not detected	ug/L	5	SW8260B	11/05/15 05:23	LBR	0.20	
cis-1,3-Dichloropropene	Not detected	ug/L	1	SW8260B	11/05/15 05:23	LBR	0.19	
Toluene	0.37	ug/L	1	SW8260B	11/05/15 05:23	LBR	0.25	J
trans-1,3-Dichloropropene	Not detected	ug/L	1	SW8260B	11/05/15 05:23	LBR	0.25	
1,1,2-Trichloroethane	Not detected	ug/L	1	SW8260B	11/05/15 05:23	LBR	0.28	
Tetrachloroethene	Not detected	ug/L	1	SW8260B	11/05/15 05:23	LBR	0.20	
trans-1,4-Dichloro-2-butene	Not detected	ug/L	1	SW8260B	11/05/15 05:23	LBR	0.20	
Dibromochloromethane	Not detected	ug/L	5	SW8260B	11/05/15 05:23	LBR	0.24	
1,2-Dibromoethane	Not detected	ug/L	1	SW8260B	11/05/15 05:23	LBR	0.30	
Chlorobenzene	Not detected	ug/L	1	SW8260B	11/05/15 05:23	LBR	0.17	
1,1,1,2-Tetrachloroethane	Not detected	ug/L	1	SW8260B	11/05/15 05:23	LBR	0.24	
Ethylbenzene	Not detected	ug/L	1	SW8260B	11/05/15 05:23	LBR	0.26	
p,m-Xylene	Not detected	ug/L	2	SW8260B	11/05/15 05:23	LBR	0.41	
o-Xylene	Not detected	ug/L	1	SW8260B	11/05/15 05:23	LBR	0.25	
Styrene	Not detected	ug/L	1	SW8260B	11/05/15 05:23	LBR	0.18	
Isopropylbenzene	Not detected	ug/L	5	SW8260B	11/05/15 05:23	LBR	0.25	
Bromoform	Not detected	ug/L	1	SW8260B	11/05/15 05:23	LBR	0.22	
1,1,2,2-Tetrachloroethane	Not detected	ug/L	1	SW8260B	11/05/15 05:23	LBR	0.18	
1,2,3-Trichloropropane	Not detected	ug/L	1	SW8260B	11/05/15 05:23	LBR	0.33	
n-Propylbenzene	Not detected	ug/L	1	SW8260B	11/05/15 05:23	LBR	0.23	
Bromobenzene	Not detected	ug/L	1	SW8260B	11/05/15 05:23	LBR	0.27	
1,3,5-Trimethylbenzene	Not detected	ug/L	1	SW8260B	11/05/15 05:23	LBR	0.26	
tert-Butylbenzene	Not detected	ug/L	1	SW8260B	11/05/15 05:23	LBR	0.18	
1,2,4-Trimethylbenzene	Not detected	ug/L	1	SW8260B	11/05/15 05:23	LBR	0.22	
sec-Butylbenzene	Not detected	ug/L	1	SW8260B	11/05/15 05:23	LBR	0.25	
p-Isopropyltoluene	Not detected	ug/L	5	SW8260B	11/05/15 05:23	LBR	0.21	
1,3-Dichlorobenzene	Not detected	ug/L	1	SW8260B	11/05/15 05:23	LBR	0.24	
1,4-Dichlorobenzene	Not detected	ug/L	1	SW8260B	11/05/15 05:23	LBR	0.23	
1,2-Dichlorobenzene	Not detected	ug/L	1	SW8260B	11/05/15 05:23	LBR	0.28	
1,2,3-Trimethylbenzene	Not detected	ug/L	1	SW8260B	11/05/15 05:23	LBR	0.061	
n-Butylbenzene	Not detected	ug/L	1	SW8260B	11/05/15 05:23	LBR	0.22	
Hexachloroethane	Not detected	ug/L	5	SW8260B	11/05/15 05:23	LBR	0.21	
1,2-Dibromo-3-chloropropane	Not detected	ug/L	5	SW8260B	11/05/15 05:23	LBR	0.47	
1,2,4-Trichlorobenzene	Not detected	ug/L	5	SW8260B	11/05/15 05:23	LBR	0.19	

J-Estimated value less than reporting limit, but greater than MDL



# Analytical Laboratory Report

Lab Sample ID: S69136.05 (continued)

Sample Tag: MW 112S

Analysis	Results	Units	RL	Method	Run Date/Time	Tech	MDL	Flags
<b>Organics - Volatiles (continued)</b>								
<b>Volatile Organics - DEQ List (continued)</b>								
1,2,3-Trichlorobenzene	Not detected	ug/L	5	SW8260B	11/05/15 05:23	LBR	0.20	
Naphthalene	Not detected	ug/L	5	SW8260B	11/05/15 05:23	LBR	0.21	
2-Methylnaphthalene	Not detected	ug/L	5	SW8260B	11/05/15 05:23	LBR	0.16	



# Analytical Laboratory Report

Lab Sample ID: S69136.06  
Sample Tag: MW 107S  
Collected Date/Time: 10/26/2015 16:00  
Matrix: Groundwater  
COC Reference: 92657

## Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	125ml Plastic	None	Yes	8.3	IR
1	125ml Plastic	HNO3	Yes	8.3	IR
3	40ml Glass	HCL	Yes	8.3	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Tech	MDL	Flags
<b>Extraction / Prep.</b>								
Metal Digestion	Completed			SW3015A	11/11/15 13:30		CCM	
Metal Digestion	Completed			SW3015A	10/30/15 15:30		CCM	
pH check for VOCs	<2	STD Units		N/A	11/05/15 13:55		ADB	
<b>Inorganics</b>								
Chromium VI, Dissolved	Not detected	mg/L	0.02	SM3500-Cr B	10/27/15 13:35	JKB	0.01	
<b>Metals</b>								
Arsenic, Dissolved	Not detected	mg/L	0.004	E200.8	11/11/15 15:22		CCM 0.00031	
Arsenic	0.0068	mg/L	0.02	E200.8	11/05/15 13:02		CCM 0.0021	b
Chromium, Dissolved	Not detected	mg/L	0.010	E200.8	11/11/15 15:22		CCM 0.00036	
Chromium	0.0295	mg/L	0.05	E200.8	11/05/15 13:02		CCM 0.0010	b
Copper, Dissolved	0.00488	mg/L	0.010	E200.8	11/11/15 15:22		CCM 0.00065	b
Copper	0.07	mg/L	0.05	E200.8	11/05/15 13:02		CCM 0.00095	
Lead, Dissolved	Not detected	mg/L	0.006	E200.8	11/11/15 15:22		CCM 0.00071	
Lead	0.01686	mg/L	0.03	E200.8	11/05/15 13:02		CCM 0.00045	b
Selenium, Dissolved	0.0022	mg/L	0.010	E200.8	11/11/15 15:22		CCM 0.0012	b
Selenium	Not detected	mg/L	0.05	E200.8	11/05/15 13:02		CCM 0.012	
Zinc, Dissolved	0.017	mg/L	0.010	E200.8	11/11/15 15:22		CCM 0.0017	
Zinc	0.11	mg/L	0.05	E200.8	11/05/15 13:02		CCM 0.0032	
<b>Organics - Volatiles</b>								
<b>Volatile Organics - DEQ List</b>								
Diethyl ether	Not detected	ug/L	10	SW8260B	11/05/15 05:45		LBR 0.50	
Acetone	Not detected	ug/L	50	SW8260B	11/05/15 05:45		LBR 0.56	
Methyl iodide	Not detected	ug/L	1	SW8260B	11/05/15 05:45		LBR 0.25	
Carbon disulfide	Not detected	ug/L	5	SW8260B	11/05/15 05:45		LBR 0.24	
tert-Methyl butyl ether (MTBE)	Not detected	ug/L	5	SW8260B	11/05/15 05:45		LBR 0.19	
Acrylonitrile	Not detected	ug/L	2	SW8260B	11/05/15 05:45		LBR 0.57	
2-Butanone (MEK)	Not detected	ug/L	25	SW8260B	11/05/15 05:45		LBR 0.26	
Dichlorodifluoromethane	Not detected	ug/L	5	SW8260B	11/05/15 05:45		LBR 0.50	
Chloromethane	Not detected	ug/L	5	SW8260B	11/05/15 05:45		LBR 0.26	
Vinyl chloride	Not detected	ug/L	1	SW8260B	11/05/15 05:45		LBR 0.31	
Bromomethane	Not detected	ug/L	5	SW8260B	11/05/15 05:45		LBR 0.32	
Chloroethane	Not detected	ug/L	5	SW8260B	11/05/15 05:45		LBR 0.34	
Trichlorofluoromethane	Not detected	ug/L	1	SW8260B	11/05/15 05:45		LBR 0.33	
1,1-Dichloroethene	Not detected	ug/L	1	SW8260B	11/05/15 05:45		LBR 0.27	
Methylene chloride	Not detected	ug/L	5	SW8260B	11/05/15 05:45		LBR 0.29	
trans-1,2-Dichloroethene	Not detected	ug/L	1	SW8260B	11/05/15 05:45		LBR 0.20	
1,1-Dichloroethane	Not detected	ug/L	1	SW8260B	11/05/15 05:45		LBR 0.20	

b-Value detected less than reporting limit, but greater than MDL



# Analytical Laboratory Report

Lab Sample ID: S69136.06 (continued)

Sample Tag: MW 107S

Analysis	Results	Units	RL	Method	Run Date/Time	Tech	MDL	Flags
<b>Organics - Volatiles (continued)</b>								
<b>Volatile Organics - DEQ List (continued)</b>								
cis-1,2-Dichloroethene	0.42	ug/L	1	SW8260B	11/05/15 05:45	LBR	0.26	J
Tetrahydrofuran	Not detected	ug/L	90	SW8260B	11/05/15 05:45	LBR	1.3	
Chloroform	Not detected	ug/L	1	SW8260B	11/05/15 05:45	LBR	0.21	
Bromochloromethane	Not detected	ug/L	1	SW8260B	11/05/15 05:45	LBR	0.38	
1,1,1-Trichloroethane	Not detected	ug/L	1	SW8260B	11/05/15 05:45	LBR	0.28	
4-Methyl-2-pentanone (MIBK)	Not detected	ug/L	50	SW8260B	11/05/15 05:45	LBR	0.14	
2-Hexanone	Not detected	ug/L	50	SW8260B	11/05/15 05:45	LBR	0.29	
Carbon tetrachloride	Not detected	ug/L	1	SW8260B	11/05/15 05:45	LBR	0.20	
Benzene	Not detected	ug/L	1	SW8260B	11/05/15 05:45	LBR	0.20	
1,2-Dichloroethane	Not detected	ug/L	1	SW8260B	11/05/15 05:45	LBR	0.16	
Trichloroethene	2	ug/L	1	SW8260B	11/05/15 05:45	LBR	0.23	
1,2-Dichloropropane	Not detected	ug/L	1	SW8260B	11/05/15 05:45	LBR	0.20	
Bromodichloromethane	Not detected	ug/L	1	SW8260B	11/05/15 05:45	LBR	0.23	
Dibromomethane	Not detected	ug/L	5	SW8260B	11/05/15 05:45	LBR	0.20	
cis-1,3-Dichloropropene	Not detected	ug/L	1	SW8260B	11/05/15 05:45	LBR	0.19	
Toluene	0.31	ug/L	1	SW8260B	11/05/15 05:45	LBR	0.25	J
trans-1,3-Dichloropropene	Not detected	ug/L	1	SW8260B	11/05/15 05:45	LBR	0.25	
1,1,2-Trichloroethane	Not detected	ug/L	1	SW8260B	11/05/15 05:45	LBR	0.28	
Tetrachloroethene	Not detected	ug/L	1	SW8260B	11/05/15 05:45	LBR	0.20	
trans-1,4-Dichloro-2-butene	Not detected	ug/L	1	SW8260B	11/05/15 05:45	LBR	0.20	
Dibromochloromethane	Not detected	ug/L	5	SW8260B	11/05/15 05:45	LBR	0.24	
1,2-Dibromoethane	Not detected	ug/L	1	SW8260B	11/05/15 05:45	LBR	0.30	
Chlorobenzene	Not detected	ug/L	1	SW8260B	11/05/15 05:45	LBR	0.17	
1,1,1,2-Tetrachloroethane	Not detected	ug/L	1	SW8260B	11/05/15 05:45	LBR	0.24	
Ethylbenzene	Not detected	ug/L	1	SW8260B	11/05/15 05:45	LBR	0.26	
p,m-Xylene	Not detected	ug/L	2	SW8260B	11/05/15 05:45	LBR	0.41	
o-Xylene	Not detected	ug/L	1	SW8260B	11/05/15 05:45	LBR	0.25	
Styrene	Not detected	ug/L	1	SW8260B	11/05/15 05:45	LBR	0.18	
Isopropylbenzene	Not detected	ug/L	5	SW8260B	11/05/15 05:45	LBR	0.25	
Bromoform	Not detected	ug/L	1	SW8260B	11/05/15 05:45	LBR	0.22	
1,1,2,2-Tetrachloroethane	Not detected	ug/L	1	SW8260B	11/05/15 05:45	LBR	0.18	
1,2,3-Trichloropropane	Not detected	ug/L	1	SW8260B	11/05/15 05:45	LBR	0.33	
n-Propylbenzene	Not detected	ug/L	1	SW8260B	11/05/15 05:45	LBR	0.23	
Bromobenzene	Not detected	ug/L	1	SW8260B	11/05/15 05:45	LBR	0.27	
1,3,5-Trimethylbenzene	Not detected	ug/L	1	SW8260B	11/05/15 05:45	LBR	0.26	
tert-Butylbenzene	Not detected	ug/L	1	SW8260B	11/05/15 05:45	LBR	0.18	
1,2,4-Trimethylbenzene	Not detected	ug/L	1	SW8260B	11/05/15 05:45	LBR	0.22	
sec-Butylbenzene	Not detected	ug/L	1	SW8260B	11/05/15 05:45	LBR	0.25	
p-Isopropyltoluene	Not detected	ug/L	5	SW8260B	11/05/15 05:45	LBR	0.21	
1,3-Dichlorobenzene	Not detected	ug/L	1	SW8260B	11/05/15 05:45	LBR	0.24	
1,4-Dichlorobenzene	Not detected	ug/L	1	SW8260B	11/05/15 05:45	LBR	0.23	
1,2-Dichlorobenzene	Not detected	ug/L	1	SW8260B	11/05/15 05:45	LBR	0.28	
1,2,3-Trimethylbenzene	Not detected	ug/L	1	SW8260B	11/05/15 05:45	LBR	0.061	
n-Butylbenzene	Not detected	ug/L	1	SW8260B	11/05/15 05:45	LBR	0.22	
Hexachloroethane	Not detected	ug/L	5	SW8260B	11/05/15 05:45	LBR	0.21	
1,2-Dibromo-3-chloropropane	Not detected	ug/L	5	SW8260B	11/05/15 05:45	LBR	0.47	
1,2,4-Trichlorobenzene	Not detected	ug/L	5	SW8260B	11/05/15 05:45	LBR	0.19	
1,2,3-Trichlorobenzene	Not detected	ug/L	5	SW8260B	11/05/15 05:45	LBR	0.20	

J-Estimated value less than reporting limit, but greater than MDL



# Analytical Laboratory Report

Lab Sample ID: S69136.06 (continued)

Sample Tag: MW 107S

Analysis	Results	Units	RL	Method	Run Date/Time	Tech	MDL	Flags
<b>Organics - Volatiles (continued)</b>								
<b>Volatile Organics - DEQ List (continued)</b>								
Naphthalene	Not detected	ug/L	5	SW8260B	11/05/15 05:45	LBR	0.21	
2-Methylnaphthalene	Not detected	ug/L	5	SW8260B	11/05/15 05:45	LBR	0.16	



# Analytical Laboratory Report

Lab Sample ID: S69136.07  
Sample Tag: MW 106SR  
Collected Date/Time: 10/26/2015 16:30  
Matrix: Groundwater  
COC Reference: 92657

## Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	125ml Plastic	None	Yes	8.3	IR
1	125ml Plastic	HNO3	Yes	8.3	IR
3	40ml Glass	HCL	Yes	8.3	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Tech	MDL	Flags
<b>Extraction / Prep.</b>								
Metal Digestion	Completed			SW3015A	11/11/15 13:30		CCM	
Metal Digestion	Completed			SW3015A	10/30/15 15:30		CCM	
pH check for VOCs	<2	STD Units		N/A	11/05/15 13:55		ADB	
<b>Inorganics</b>								
Chromium VI, Dissolved	Not detected	mg/L	0.02	SM3500-Cr B	10/27/15 13:40	JKB	0.01	
<b>Metals</b>								
Arsenic, Dissolved	Not detected	mg/L	0.004	E200.8	11/11/15 15:25		CCM 0.00031	
Arsenic	0.053	mg/L	0.2	E200.8	11/05/15 13:04		CCM 0.043	b
Chromium, Dissolved	0.128	mg/L	0.010	E200.8	11/11/15 15:25		CCM 0.00036	
Chromium	446	mg/L	0.5	E200.8	11/05/15 13:04		CCM 0.021	
Copper, Dissolved	0.00150	mg/L	0.010	E200.8	11/11/15 15:25		CCM 0.00065	b
Copper	2.76	mg/L	0.5	E200.8	11/05/15 13:04		CCM 0.019	
Lead, Dissolved	0.00111	mg/L	0.006	E200.8	11/11/15 15:25		CCM 0.00071	b
Lead	0.3	mg/L	0.3	E200.8	11/05/15 13:04		CCM 0.0090	
Selenium, Dissolved	0.0046	mg/L	0.010	E200.8	11/11/15 15:25		CCM 0.0012	b
Selenium	Not detected	mg/L	0.5	E200.8	11/05/15 13:04		CCM 0.24	
Zinc, Dissolved	0.022	mg/L	0.010	E200.8	11/11/15 15:25		CCM 0.0017	
Zinc	1.6	mg/L	0.5	E200.8	11/05/15 13:04		CCM 0.064	
<b>Organics - Volatiles</b>								
<b>Volatile Organics - DEQ List</b>								
Diethyl ether	Not detected	ug/L	10	SW8260B	11/05/15 06:07		LBR 0.50	
Acetone	Not detected	ug/L	50	SW8260B	11/05/15 06:07		LBR 0.56	
Methyl iodide	Not detected	ug/L	1	SW8260B	11/05/15 06:07		LBR 0.25	
Carbon disulfide	Not detected	ug/L	5	SW8260B	11/05/15 06:07		LBR 0.24	
tert-Methyl butyl ether (MTBE)	Not detected	ug/L	5	SW8260B	11/05/15 06:07		LBR 0.19	
Acrylonitrile	Not detected	ug/L	2	SW8260B	11/05/15 06:07		LBR 0.57	
2-Butanone (MEK)	0.27	ug/L	25	SW8260B	11/05/15 06:07		LBR 0.26	J
Dichlorodifluoromethane	Not detected	ug/L	5	SW8260B	11/05/15 06:07		LBR 0.50	
Chloromethane	Not detected	ug/L	5	SW8260B	11/05/15 06:07		LBR 0.26	
Vinyl chloride	Not detected	ug/L	1	SW8260B	11/05/15 06:07		LBR 0.31	
Bromomethane	Not detected	ug/L	5	SW8260B	11/05/15 06:07		LBR 0.32	
Chloroethane	Not detected	ug/L	5	SW8260B	11/05/15 06:07		LBR 0.34	
Trichlorofluoromethane	Not detected	ug/L	1	SW8260B	11/05/15 06:07		LBR 0.33	
1,1-Dichloroethene	Not detected	ug/L	1	SW8260B	11/05/15 06:07		LBR 0.27	
Methylene chloride	Not detected	ug/L	5	SW8260B	11/05/15 06:07		LBR 0.29	
trans-1,2-Dichloroethene	Not detected	ug/L	1	SW8260B	11/05/15 06:07		LBR 0.20	

b-Value detected less than reporting limit, but greater than MDL

J-Estimated value less than reporting limit, but greater than MDL



# Analytical Laboratory Report

Lab Sample ID: S69136.07 (continued)

Sample Tag: MW 106SR

Analysis	Results	Units	RL	Method	Run Date/Time	Tech	MDL	Flags
<b>Organics - Volatiles (continued)</b>								
<b>Volatile Organics - DEQ List (continued)</b>								
1,1-Dichloroethane	Not detected	ug/L	1	SW8260B	11/05/15 06:07	LBR	0.20	
cis-1,2-Dichloroethene	Not detected	ug/L	1	SW8260B	11/05/15 06:07	LBR	0.26	
Tetrahydrofuran	Not detected	ug/L	90	SW8260B	11/05/15 06:07	LBR	1.3	
Chloroform	Not detected	ug/L	1	SW8260B	11/05/15 06:07	LBR	0.21	
Bromochloromethane	Not detected	ug/L	1	SW8260B	11/05/15 06:07	LBR	0.38	
1,1,1-Trichloroethane	Not detected	ug/L	1	SW8260B	11/05/15 06:07	LBR	0.28	
4-Methyl-2-pentanone (MIBK)	Not detected	ug/L	50	SW8260B	11/05/15 06:07	LBR	0.14	
2-Hexanone	Not detected	ug/L	50	SW8260B	11/05/15 06:07	LBR	0.29	
Carbon tetrachloride	Not detected	ug/L	1	SW8260B	11/05/15 06:07	LBR	0.20	
Benzene	0.22	ug/L	1	SW8260B	11/05/15 06:07	LBR	0.20	J
1,2-Dichloroethane	Not detected	ug/L	1	SW8260B	11/05/15 06:07	LBR	0.16	
Trichloroethene	Not detected	ug/L	1	SW8260B	11/05/15 06:07	LBR	0.23	
1,2-Dichloropropane	Not detected	ug/L	1	SW8260B	11/05/15 06:07	LBR	0.20	
Bromodichloromethane	Not detected	ug/L	1	SW8260B	11/05/15 06:07	LBR	0.23	
Dibromomethane	Not detected	ug/L	5	SW8260B	11/05/15 06:07	LBR	0.20	
cis-1,3-Dichloropropene	Not detected	ug/L	1	SW8260B	11/05/15 06:07	LBR	0.19	
Toluene	0.40	ug/L	1	SW8260B	11/05/15 06:07	LBR	0.25	J
trans-1,3-Dichloropropene	Not detected	ug/L	1	SW8260B	11/05/15 06:07	LBR	0.25	
1,1,2-Trichloroethane	Not detected	ug/L	1	SW8260B	11/05/15 06:07	LBR	0.28	
Tetrachloroethene	Not detected	ug/L	1	SW8260B	11/05/15 06:07	LBR	0.20	
trans-1,4-Dichloro-2-butene	Not detected	ug/L	1	SW8260B	11/05/15 06:07	LBR	0.20	
Dibromochloromethane	Not detected	ug/L	5	SW8260B	11/05/15 06:07	LBR	0.24	
1,2-Dibromoethane	Not detected	ug/L	1	SW8260B	11/05/15 06:07	LBR	0.30	
Chlorobenzene	Not detected	ug/L	1	SW8260B	11/05/15 06:07	LBR	0.17	
1,1,1,2-Tetrachloroethane	Not detected	ug/L	1	SW8260B	11/05/15 06:07	LBR	0.24	
Ethylbenzene	Not detected	ug/L	1	SW8260B	11/05/15 06:07	LBR	0.26	
p,m-Xylene	Not detected	ug/L	2	SW8260B	11/05/15 06:07	LBR	0.41	
o-Xylene	Not detected	ug/L	1	SW8260B	11/05/15 06:07	LBR	0.25	
Styrene	Not detected	ug/L	1	SW8260B	11/05/15 06:07	LBR	0.18	
Isopropylbenzene	Not detected	ug/L	5	SW8260B	11/05/15 06:07	LBR	0.25	
Bromoform	Not detected	ug/L	1	SW8260B	11/05/15 06:07	LBR	0.22	
1,1,2,2-Tetrachloroethane	Not detected	ug/L	1	SW8260B	11/05/15 06:07	LBR	0.18	
1,2,3-Trichloropropane	Not detected	ug/L	1	SW8260B	11/05/15 06:07	LBR	0.33	
n-Propylbenzene	Not detected	ug/L	1	SW8260B	11/05/15 06:07	LBR	0.23	
Bromobenzene	Not detected	ug/L	1	SW8260B	11/05/15 06:07	LBR	0.27	
1,3,5-Trimethylbenzene	Not detected	ug/L	1	SW8260B	11/05/15 06:07	LBR	0.26	
tert-Butylbenzene	Not detected	ug/L	1	SW8260B	11/05/15 06:07	LBR	0.18	
1,2,4-Trimethylbenzene	Not detected	ug/L	1	SW8260B	11/05/15 06:07	LBR	0.22	
sec-Butylbenzene	Not detected	ug/L	1	SW8260B	11/05/15 06:07	LBR	0.25	
p-Isopropyltoluene	Not detected	ug/L	5	SW8260B	11/05/15 06:07	LBR	0.21	
1,3-Dichlorobenzene	Not detected	ug/L	1	SW8260B	11/05/15 06:07	LBR	0.24	
1,4-Dichlorobenzene	Not detected	ug/L	1	SW8260B	11/05/15 06:07	LBR	0.23	
1,2-Dichlorobenzene	Not detected	ug/L	1	SW8260B	11/05/15 06:07	LBR	0.28	
1,2,3-Trimethylbenzene	Not detected	ug/L	1	SW8260B	11/05/15 06:07	LBR	0.061	
n-Butylbenzene	Not detected	ug/L	1	SW8260B	11/05/15 06:07	LBR	0.22	
Hexachloroethane	Not detected	ug/L	5	SW8260B	11/05/15 06:07	LBR	0.21	
1,2-Dibromo-3-chloropropane	Not detected	ug/L	5	SW8260B	11/05/15 06:07	LBR	0.47	
1,2,4-Trichlorobenzene	Not detected	ug/L	5	SW8260B	11/05/15 06:07	LBR	0.19	

J-Estimated value less than reporting limit, but greater than MDL



# Analytical Laboratory Report

Lab Sample ID: S69136.07 (continued)

Sample Tag: MW 106SR

Analysis	Results	Units	RL	Method	Run Date/Time	Tech	MDL	Flags
<b>Organics - Volatiles (continued)</b>								
<b>Volatile Organics - DEQ List (continued)</b>								
1,2,3-Trichlorobenzene	Not detected	ug/L	5	SW8260B	11/05/15 06:07	LBR	0.20	
Naphthalene	Not detected	ug/L	5	SW8260B	11/05/15 06:07	LBR	0.21	
2-Methylnaphthalene	Not detected	ug/L	5	SW8260B	11/05/15 06:07	LBR	0.16	



# Analytical Laboratory Report

Lab Sample ID: S69136.08  
Sample Tag: Trip Blank  
Collected Date/Time: 10/26/2015 13:00  
Matrix: Liquid  
COC Reference: 92657

## Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40ml Glass	HCL	Yes	8.3	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Tech	MDL	Flags
<b>Extraction / Prep.</b> pH check for VOCs	<2	STD Units		N/A	11/05/15 13:55		ADB	

## Organics - Volatiles

### Volatile Organics - DEQ List

Diethyl ether	Not detected	ug/L	10	SW8260B	11/05/15 06:28	LBR	0.50	
Acetone	Not detected	ug/L	50	SW8260B	11/05/15 06:28	LBR	0.56	
Methyl iodide	Not detected	ug/L	1	SW8260B	11/05/15 06:28	LBR	0.25	
Carbon disulfide	Not detected	ug/L	5	SW8260B	11/05/15 06:28	LBR	0.24	
tert-Methyl butyl ether (MTBE)	Not detected	ug/L	5	SW8260B	11/05/15 06:28	LBR	0.19	
Acrylonitrile	Not detected	ug/L	2	SW8260B	11/05/15 06:28	LBR	0.57	
2-Butanone (MEK)	0.82	ug/L	25	SW8260B	11/05/15 06:28	LBR	0.26	J
Dichlorodifluoromethane	Not detected	ug/L	5	SW8260B	11/05/15 06:28	LBR	0.50	
Chloromethane	Not detected	ug/L	5	SW8260B	11/05/15 06:28	LBR	0.26	
Vinyl chloride	Not detected	ug/L	1	SW8260B	11/05/15 06:28	LBR	0.31	
Bromomethane	Not detected	ug/L	5	SW8260B	11/05/15 06:28	LBR	0.32	
Chloroethane	Not detected	ug/L	5	SW8260B	11/05/15 06:28	LBR	0.34	
Trichlorofluoromethane	Not detected	ug/L	1	SW8260B	11/05/15 06:28	LBR	0.33	
1,1-Dichloroethene	Not detected	ug/L	1	SW8260B	11/05/15 06:28	LBR	0.27	
Methylene chloride	Not detected	ug/L	5	SW8260B	11/05/15 06:28	LBR	0.29	
trans-1,2-Dichloroethene	Not detected	ug/L	1	SW8260B	11/05/15 06:28	LBR	0.20	
1,1-Dichloroethane	Not detected	ug/L	1	SW8260B	11/05/15 06:28	LBR	0.20	
cis-1,2-Dichloroethene	Not detected	ug/L	1	SW8260B	11/05/15 06:28	LBR	0.26	
Tetrahydrofuran	Not detected	ug/L	90	SW8260B	11/05/15 06:28	LBR	1.3	
Chloroform	Not detected	ug/L	1	SW8260B	11/05/15 06:28	LBR	0.21	
Bromochloromethane	Not detected	ug/L	1	SW8260B	11/05/15 06:28	LBR	0.38	
1,1,1-Trichloroethane	Not detected	ug/L	1	SW8260B	11/05/15 06:28	LBR	0.28	
4-Methyl-2-pentanone (MIBK)	Not detected	ug/L	50	SW8260B	11/05/15 06:28	LBR	0.14	
2-Hexanone	Not detected	ug/L	50	SW8260B	11/05/15 06:28	LBR	0.29	
Carbon tetrachloride	Not detected	ug/L	1	SW8260B	11/05/15 06:28	LBR	0.20	
Benzene	Not detected	ug/L	1	SW8260B	11/05/15 06:28	LBR	0.20	
1,2-Dichloroethane	Not detected	ug/L	1	SW8260B	11/05/15 06:28	LBR	0.16	
Trichloroethene	Not detected	ug/L	1	SW8260B	11/05/15 06:28	LBR	0.23	
1,2-Dichloropropane	Not detected	ug/L	1	SW8260B	11/05/15 06:28	LBR	0.20	
Bromodichloromethane	Not detected	ug/L	1	SW8260B	11/05/15 06:28	LBR	0.23	
Dibromomethane	Not detected	ug/L	5	SW8260B	11/05/15 06:28	LBR	0.20	
cis-1,3-Dichloropropene	Not detected	ug/L	1	SW8260B	11/05/15 06:28	LBR	0.19	
Toluene	Not detected	ug/L	1	SW8260B	11/05/15 06:28	LBR	0.25	
trans-1,3-Dichloropropene	Not detected	ug/L	1	SW8260B	11/05/15 06:28	LBR	0.25	
1,1,2-Trichloroethane	Not detected	ug/L	1	SW8260B	11/05/15 06:28	LBR	0.28	
Tetrachloroethene	Not detected	ug/L	1	SW8260B	11/05/15 06:28	LBR	0.20	
trans-1,4-Dichloro-2-butene	Not detected	ug/L	1	SW8260B	11/05/15 06:28	LBR	0.20	
Dibromochloromethane	Not detected	ug/L	5	SW8260B	11/05/15 06:28	LBR	0.24	

J-Estimated value less than reporting limit, but greater than MDL



# Analytical Laboratory Report

Lab Sample ID: S69136.08 (continued)

Sample Tag: Trip Blank

Analysis	Results	Units	RL	Method	Run Date/Time	Tech	MDL	Flags
<b>Organics - Volatiles (continued)</b>								
<b>Volatile Organics - DEQ List (continued)</b>								
1,2-Dibromoethane	Not detected	ug/L	1	SW8260B	11/05/15 06:28	LBR	0.30	
Chlorobenzene	Not detected	ug/L	1	SW8260B	11/05/15 06:28	LBR	0.17	
1,1,1,2-Tetrachloroethane	Not detected	ug/L	1	SW8260B	11/05/15 06:28	LBR	0.24	
Ethylbenzene	Not detected	ug/L	1	SW8260B	11/05/15 06:28	LBR	0.26	
p,m-Xylene	Not detected	ug/L	2	SW8260B	11/05/15 06:28	LBR	0.41	
o-Xylene	Not detected	ug/L	1	SW8260B	11/05/15 06:28	LBR	0.25	
Styrene	Not detected	ug/L	1	SW8260B	11/05/15 06:28	LBR	0.18	
Isopropylbenzene	Not detected	ug/L	5	SW8260B	11/05/15 06:28	LBR	0.25	
Bromoform	Not detected	ug/L	1	SW8260B	11/05/15 06:28	LBR	0.22	
1,1,2,2-Tetrachloroethane	Not detected	ug/L	1	SW8260B	11/05/15 06:28	LBR	0.18	
1,2,3-Trichloropropane	Not detected	ug/L	1	SW8260B	11/05/15 06:28	LBR	0.33	
n-Propylbenzene	Not detected	ug/L	1	SW8260B	11/05/15 06:28	LBR	0.23	
Bromobenzene	Not detected	ug/L	1	SW8260B	11/05/15 06:28	LBR	0.27	
1,3,5-Trimethylbenzene	Not detected	ug/L	1	SW8260B	11/05/15 06:28	LBR	0.26	
tert-Butylbenzene	Not detected	ug/L	1	SW8260B	11/05/15 06:28	LBR	0.18	
1,2,4-Trimethylbenzene	Not detected	ug/L	1	SW8260B	11/05/15 06:28	LBR	0.22	
sec-Butylbenzene	Not detected	ug/L	1	SW8260B	11/05/15 06:28	LBR	0.25	
p-Isopropyltoluene	Not detected	ug/L	5	SW8260B	11/05/15 06:28	LBR	0.21	
1,3-Dichlorobenzene	Not detected	ug/L	1	SW8260B	11/05/15 06:28	LBR	0.24	
1,4-Dichlorobenzene	Not detected	ug/L	1	SW8260B	11/05/15 06:28	LBR	0.23	
1,2-Dichlorobenzene	Not detected	ug/L	1	SW8260B	11/05/15 06:28	LBR	0.28	
1,2,3-Trimethylbenzene	Not detected	ug/L	1	SW8260B	11/05/15 06:28	LBR	0.061	
n-Butylbenzene	Not detected	ug/L	1	SW8260B	11/05/15 06:28	LBR	0.22	
Hexachloroethane	Not detected	ug/L	5	SW8260B	11/05/15 06:28	LBR	0.21	
1,2-Dibromo-3-chloropropane	Not detected	ug/L	5	SW8260B	11/05/15 06:28	LBR	0.47	
1,2,4-Trichlorobenzene	Not detected	ug/L	5	SW8260B	11/05/15 06:28	LBR	0.19	
1,2,3-Trichlorobenzene	Not detected	ug/L	5	SW8260B	11/05/15 06:28	LBR	0.20	
Naphthalene	Not detected	ug/L	5	SW8260B	11/05/15 06:28	LBR	0.21	
2-Methylnaphthalene	Not detected	ug/L	5	SW8260B	11/05/15 06:28	LBR	0.16	



# Analytical Laboratory Report

Lab Sample ID: S69136.09  
Sample Tag: Field Blank  
Collected Date/Time: 10/26/2015 13:30  
Matrix: Liquid  
COC Reference: 92657

## Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40ml Glass	HCL	Yes	8.3	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Tech	MDL	Flags
<b>Extraction / Prep.</b> pH check for VOCs	<2	STD Units		N/A	11/05/15 13:55		ADB	

## Organics - Volatiles

### Volatile Organics - DEQ List

Diethyl ether	Not detected	ug/L	10	SW8260B	11/05/15 06:50	LBR	0.50	
Acetone	Not detected	ug/L	50	SW8260B	11/05/15 06:50	LBR	0.56	
Methyl iodide	Not detected	ug/L	1	SW8260B	11/05/15 06:50	LBR	0.25	
Carbon disulfide	Not detected	ug/L	5	SW8260B	11/05/15 06:50	LBR	0.24	
tert-Methyl butyl ether (MTBE)	Not detected	ug/L	5	SW8260B	11/05/15 06:50	LBR	0.19	
Acrylonitrile	Not detected	ug/L	2	SW8260B	11/05/15 06:50	LBR	0.57	
2-Butanone (MEK)	0.79	ug/L	25	SW8260B	11/05/15 06:50	LBR	0.26	J
Dichlorodifluoromethane	Not detected	ug/L	5	SW8260B	11/05/15 06:50	LBR	0.50	
Chloromethane	Not detected	ug/L	5	SW8260B	11/05/15 06:50	LBR	0.26	
Vinyl chloride	Not detected	ug/L	1	SW8260B	11/05/15 06:50	LBR	0.31	
Bromomethane	Not detected	ug/L	5	SW8260B	11/05/15 06:50	LBR	0.32	
Chloroethane	Not detected	ug/L	5	SW8260B	11/05/15 06:50	LBR	0.34	
Trichlorofluoromethane	Not detected	ug/L	1	SW8260B	11/05/15 06:50	LBR	0.33	
1,1-Dichloroethene	Not detected	ug/L	1	SW8260B	11/05/15 06:50	LBR	0.27	
Methylene chloride	Not detected	ug/L	5	SW8260B	11/05/15 06:50	LBR	0.29	
trans-1,2-Dichloroethene	Not detected	ug/L	1	SW8260B	11/05/15 06:50	LBR	0.20	
1,1-Dichloroethane	Not detected	ug/L	1	SW8260B	11/05/15 06:50	LBR	0.20	
cis-1,2-Dichloroethene	Not detected	ug/L	1	SW8260B	11/05/15 06:50	LBR	0.26	
Tetrahydrofuran	Not detected	ug/L	90	SW8260B	11/05/15 06:50	LBR	1.3	
Chloroform	Not detected	ug/L	1	SW8260B	11/05/15 06:50	LBR	0.21	
Bromochloromethane	Not detected	ug/L	1	SW8260B	11/05/15 06:50	LBR	0.38	
1,1,1-Trichloroethane	Not detected	ug/L	1	SW8260B	11/05/15 06:50	LBR	0.28	
4-Methyl-2-pentanone (MIBK)	Not detected	ug/L	50	SW8260B	11/05/15 06:50	LBR	0.14	
2-Hexanone	Not detected	ug/L	50	SW8260B	11/05/15 06:50	LBR	0.29	
Carbon tetrachloride	Not detected	ug/L	1	SW8260B	11/05/15 06:50	LBR	0.20	
Benzene	Not detected	ug/L	1	SW8260B	11/05/15 06:50	LBR	0.20	
1,2-Dichloroethane	Not detected	ug/L	1	SW8260B	11/05/15 06:50	LBR	0.16	
Trichloroethene	Not detected	ug/L	1	SW8260B	11/05/15 06:50	LBR	0.23	
1,2-Dichloropropane	Not detected	ug/L	1	SW8260B	11/05/15 06:50	LBR	0.20	
Bromodichloromethane	Not detected	ug/L	1	SW8260B	11/05/15 06:50	LBR	0.23	
Dibromomethane	Not detected	ug/L	5	SW8260B	11/05/15 06:50	LBR	0.20	
cis-1,3-Dichloropropene	Not detected	ug/L	1	SW8260B	11/05/15 06:50	LBR	0.19	
Toluene	Not detected	ug/L	1	SW8260B	11/05/15 06:50	LBR	0.25	
trans-1,3-Dichloropropene	Not detected	ug/L	1	SW8260B	11/05/15 06:50	LBR	0.25	
1,1,2-Trichloroethane	Not detected	ug/L	1	SW8260B	11/05/15 06:50	LBR	0.28	
Tetrachloroethene	Not detected	ug/L	1	SW8260B	11/05/15 06:50	LBR	0.20	
trans-1,4-Dichloro-2-butene	Not detected	ug/L	1	SW8260B	11/05/15 06:50	LBR	0.20	
Dibromochloromethane	Not detected	ug/L	5	SW8260B	11/05/15 06:50	LBR	0.24	

J-Estimated value less than reporting limit, but greater than MDL



# Analytical Laboratory Report

Lab Sample ID: S69136.09 (continued)

Sample Tag: Field Blank

Analysis	Results	Units	RL	Method	Run Date/Time	Tech	MDL	Flags
<b>Organics - Volatiles (continued)</b>								
<b>Volatile Organics - DEQ List (continued)</b>								
1,2-Dibromoethane	Not detected	ug/L	1	SW8260B	11/05/15 06:50	LBR	0.30	
Chlorobenzene	Not detected	ug/L	1	SW8260B	11/05/15 06:50	LBR	0.17	
1,1,1,2-Tetrachloroethane	Not detected	ug/L	1	SW8260B	11/05/15 06:50	LBR	0.24	
Ethylbenzene	Not detected	ug/L	1	SW8260B	11/05/15 06:50	LBR	0.26	
p,m-Xylene	Not detected	ug/L	2	SW8260B	11/05/15 06:50	LBR	0.41	
o-Xylene	Not detected	ug/L	1	SW8260B	11/05/15 06:50	LBR	0.25	
Styrene	Not detected	ug/L	1	SW8260B	11/05/15 06:50	LBR	0.18	
Isopropylbenzene	Not detected	ug/L	5	SW8260B	11/05/15 06:50	LBR	0.25	
Bromoform	Not detected	ug/L	1	SW8260B	11/05/15 06:50	LBR	0.22	
1,1,2,2-Tetrachloroethane	Not detected	ug/L	1	SW8260B	11/05/15 06:50	LBR	0.18	
1,2,3-Trichloropropane	Not detected	ug/L	1	SW8260B	11/05/15 06:50	LBR	0.33	
n-Propylbenzene	Not detected	ug/L	1	SW8260B	11/05/15 06:50	LBR	0.23	
Bromobenzene	Not detected	ug/L	1	SW8260B	11/05/15 06:50	LBR	0.27	
1,3,5-Trimethylbenzene	Not detected	ug/L	1	SW8260B	11/05/15 06:50	LBR	0.26	
tert-Butylbenzene	Not detected	ug/L	1	SW8260B	11/05/15 06:50	LBR	0.18	
1,2,4-Trimethylbenzene	Not detected	ug/L	1	SW8260B	11/05/15 06:50	LBR	0.22	
sec-Butylbenzene	Not detected	ug/L	1	SW8260B	11/05/15 06:50	LBR	0.25	
p-Isopropyltoluene	Not detected	ug/L	5	SW8260B	11/05/15 06:50	LBR	0.21	
1,3-Dichlorobenzene	Not detected	ug/L	1	SW8260B	11/05/15 06:50	LBR	0.24	
1,4-Dichlorobenzene	Not detected	ug/L	1	SW8260B	11/05/15 06:50	LBR	0.23	
1,2-Dichlorobenzene	Not detected	ug/L	1	SW8260B	11/05/15 06:50	LBR	0.28	
1,2,3-Trimethylbenzene	Not detected	ug/L	1	SW8260B	11/05/15 06:50	LBR	0.061	
n-Butylbenzene	Not detected	ug/L	1	SW8260B	11/05/15 06:50	LBR	0.22	
Hexachloroethane	Not detected	ug/L	5	SW8260B	11/05/15 06:50	LBR	0.21	
1,2-Dibromo-3-chloropropane	Not detected	ug/L	5	SW8260B	11/05/15 06:50	LBR	0.47	
1,2,4-Trichlorobenzene	Not detected	ug/L	5	SW8260B	11/05/15 06:50	LBR	0.19	
1,2,3-Trichlorobenzene	Not detected	ug/L	5	SW8260B	11/05/15 06:50	LBR	0.20	
Naphthalene	Not detected	ug/L	5	SW8260B	11/05/15 06:50	LBR	0.21	
2-Methylnaphthalene	Not detected	ug/L	5	SW8260B	11/05/15 06:50	LBR	0.16	



# Analytical Laboratory Report

Lab Sample ID: S69136.10  
Sample Tag: Duplicate  
Collected Date/Time: 10/26/2015 00:01  
Matrix: Liquid  
COC Reference: 92657

## Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	125ml Plastic	None	Yes	8.3	IR
1	125ml Plastic	HNO3	Yes	8.3	IR
1	40ml Glass	HCL	Yes	8.3	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Tech	MDL	Flags
<b>Extraction / Prep.</b>								
Metal Digestion	Completed			SW3015A	11/11/15 13:30		CCM	
Metal Digestion	Completed			SW3015A	10/30/15 15:30		CCM	
pH check for VOCs	<2	STD Units		N/A	11/05/15 13:55		ADB	
<b>Inorganics</b>								
Chromium VI, Dissolved	Not detected	mg/L	0.02	SM3500-Cr B	10/27/15 13:45	JKB	0.01	
<b>Metals</b>								
Arsenic, Dissolved	0.008	mg/L	0.004	E200.8	11/11/15 15:28		CCM 0.00031	
Arsenic	0.233	mg/L	0.02	E200.8	11/05/15 13:05		CCM 0.0021	
Chromium, Dissolved	0.00085	mg/L	0.010	E200.8	11/11/15 15:28		CCM 0.00036	b
Chromium	0.15	mg/L	0.05	E200.8	11/05/15 13:05		CCM 0.0010	
Copper, Dissolved	0.044	mg/L	0.010	E200.8	11/11/15 15:28		CCM 0.00065	
Copper	0.18	mg/L	0.05	E200.8	11/05/15 13:05		CCM 0.00095	
Lead, Dissolved	0.00086	mg/L	0.006	E200.8	11/11/15 15:28		CCM 0.00071	b
Lead	0.08	mg/L	0.03	E200.8	11/05/15 13:05		CCM 0.00045	
Selenium, Dissolved	Not detected	mg/L	0.010	E200.8	11/11/15 15:28		CCM 0.0012	
Selenium	Not detected	mg/L	0.05	E200.8	11/05/15 13:05		CCM 0.012	
Zinc, Dissolved	0.108	mg/L	0.010	E200.8	11/11/15 15:28		CCM 0.0017	
Zinc	0.40	mg/L	0.05	E200.8	11/05/15 13:05		CCM 0.0032	
<b>Organics - Volatiles</b>								
<b>Volatile Organics - DEQ List</b>								
Diethyl ether	Not detected	ug/L	10	SW8260B	11/05/15 07:12	LBR	0.50	
Acetone	Not detected	ug/L	50	SW8260B	11/05/15 07:12	LBR	0.56	
Methyl iodide	Not detected	ug/L	1	SW8260B	11/05/15 07:12	LBR	0.25	
Carbon disulfide	Not detected	ug/L	5	SW8260B	11/05/15 07:12	LBR	0.24	
tert-Methyl butyl ether (MTBE)	Not detected	ug/L	5	SW8260B	11/05/15 07:12	LBR	0.19	
Acrylonitrile	Not detected	ug/L	2	SW8260B	11/05/15 07:12	LBR	0.57	
2-Butanone (MEK)	2.80	ug/L	25	SW8260B	11/05/15 07:12	LBR	0.26	J
Dichlorodifluoromethane	Not detected	ug/L	5	SW8260B	11/05/15 07:12	LBR	0.50	
Chloromethane	Not detected	ug/L	5	SW8260B	11/05/15 07:12	LBR	0.26	
Vinyl chloride	2	ug/L	1	SW8260B	11/05/15 07:12	LBR	0.31	
Bromomethane	Not detected	ug/L	5	SW8260B	11/05/15 07:12	LBR	0.32	
Chloroethane	Not detected	ug/L	5	SW8260B	11/05/15 07:12	LBR	0.34	
Trichlorofluoromethane	Not detected	ug/L	1	SW8260B	11/05/15 07:12	LBR	0.33	
1,1-Dichloroethene	Not detected	ug/L	1	SW8260B	11/05/15 07:12	LBR	0.27	
Methylene chloride	Not detected	ug/L	5	SW8260B	11/05/15 07:12	LBR	0.29	
trans-1,2-Dichloroethene	Not detected	ug/L	1	SW8260B	11/05/15 07:12	LBR	0.20	

b-Value detected less than reporting limit, but greater than MDL

J-Estimated value less than reporting limit, but greater than MDL



# Analytical Laboratory Report

Lab Sample ID: S69136.10 (continued)

Sample Tag: Duplicate

Analysis	Results	Units	RL	Method	Run Date/Time	Tech	MDL	Flags
<b>Organics - Volatiles (continued)</b>								
<b>Volatile Organics - DEQ List (continued)</b>								
1,1-Dichloroethane	0.79	ug/L	1	SW8260B	11/05/15 07:12	LBR	0.20	J
cis-1,2-Dichloroethene	1	ug/L	1	SW8260B	11/05/15 07:12	LBR	0.26	
Tetrahydrofuran	Not detected	ug/L	90	SW8260B	11/05/15 07:12	LBR	1.3	
Chloroform	Not detected	ug/L	1	SW8260B	11/05/15 07:12	LBR	0.21	
Bromochloromethane	Not detected	ug/L	1	SW8260B	11/05/15 07:12	LBR	0.38	
1,1,1-Trichloroethane	Not detected	ug/L	1	SW8260B	11/05/15 07:12	LBR	0.28	
4-Methyl-2-pentanone (MIBK)	1.26	ug/L	50	SW8260B	11/05/15 07:12	LBR	0.14	J
2-Hexanone	1.95	ug/L	50	SW8260B	11/05/15 07:12	LBR	0.29	J
Carbon tetrachloride	Not detected	ug/L	1	SW8260B	11/05/15 07:12	LBR	0.20	
Benzene	Not detected	ug/L	1	SW8260B	11/05/15 07:12	LBR	0.20	
1,2-Dichloroethane	Not detected	ug/L	1	SW8260B	11/05/15 07:12	LBR	0.16	
Trichloroethene	Not detected	ug/L	1	SW8260B	11/05/15 07:12	LBR	0.23	
1,2-Dichloropropane	Not detected	ug/L	1	SW8260B	11/05/15 07:12	LBR	0.20	
Bromodichloromethane	Not detected	ug/L	1	SW8260B	11/05/15 07:12	LBR	0.23	
Dibromomethane	Not detected	ug/L	5	SW8260B	11/05/15 07:12	LBR	0.20	
cis-1,3-Dichloropropene	Not detected	ug/L	1	SW8260B	11/05/15 07:12	LBR	0.19	
Toluene	Not detected	ug/L	1	SW8260B	11/05/15 07:12	LBR	0.25	
trans-1,3-Dichloropropene	Not detected	ug/L	1	SW8260B	11/05/15 07:12	LBR	0.25	
1,1,2-Trichloroethane	Not detected	ug/L	1	SW8260B	11/05/15 07:12	LBR	0.28	
Tetrachloroethene	Not detected	ug/L	1	SW8260B	11/05/15 07:12	LBR	0.20	
trans-1,4-Dichloro-2-butene	Not detected	ug/L	1	SW8260B	11/05/15 07:12	LBR	0.20	
Dibromochloromethane	Not detected	ug/L	5	SW8260B	11/05/15 07:12	LBR	0.24	
1,2-Dibromoethane	Not detected	ug/L	1	SW8260B	11/05/15 07:12	LBR	0.30	
Chlorobenzene	Not detected	ug/L	1	SW8260B	11/05/15 07:12	LBR	0.17	
1,1,1,2-Tetrachloroethane	Not detected	ug/L	1	SW8260B	11/05/15 07:12	LBR	0.24	
Ethylbenzene	Not detected	ug/L	1	SW8260B	11/05/15 07:12	LBR	0.26	
p,m-Xylene	Not detected	ug/L	2	SW8260B	11/05/15 07:12	LBR	0.41	
o-Xylene	Not detected	ug/L	1	SW8260B	11/05/15 07:12	LBR	0.25	
Styrene	Not detected	ug/L	1	SW8260B	11/05/15 07:12	LBR	0.18	
Isopropylbenzene	Not detected	ug/L	5	SW8260B	11/05/15 07:12	LBR	0.25	
Bromoform	Not detected	ug/L	1	SW8260B	11/05/15 07:12	LBR	0.22	
1,1,2,2-Tetrachloroethane	Not detected	ug/L	1	SW8260B	11/05/15 07:12	LBR	0.18	
1,2,3-Trichloropropane	Not detected	ug/L	1	SW8260B	11/05/15 07:12	LBR	0.33	
n-Propylbenzene	Not detected	ug/L	1	SW8260B	11/05/15 07:12	LBR	0.23	
Bromobenzene	Not detected	ug/L	1	SW8260B	11/05/15 07:12	LBR	0.27	
1,3,5-Trimethylbenzene	Not detected	ug/L	1	SW8260B	11/05/15 07:12	LBR	0.26	
tert-Butylbenzene	Not detected	ug/L	1	SW8260B	11/05/15 07:12	LBR	0.18	
1,2,4-Trimethylbenzene	Not detected	ug/L	1	SW8260B	11/05/15 07:12	LBR	0.22	
sec-Butylbenzene	Not detected	ug/L	1	SW8260B	11/05/15 07:12	LBR	0.25	
p-Isopropyltoluene	Not detected	ug/L	5	SW8260B	11/05/15 07:12	LBR	0.21	
1,3-Dichlorobenzene	Not detected	ug/L	1	SW8260B	11/05/15 07:12	LBR	0.24	
1,4-Dichlorobenzene	Not detected	ug/L	1	SW8260B	11/05/15 07:12	LBR	0.23	
1,2-Dichlorobenzene	Not detected	ug/L	1	SW8260B	11/05/15 07:12	LBR	0.28	
1,2,3-Trimethylbenzene	Not detected	ug/L	1	SW8260B	11/05/15 07:12	LBR	0.061	
n-Butylbenzene	Not detected	ug/L	1	SW8260B	11/05/15 07:12	LBR	0.22	
Hexachloroethane	Not detected	ug/L	5	SW8260B	11/05/15 07:12	LBR	0.21	
1,2-Dibromo-3-chloropropane	Not detected	ug/L	5	SW8260B	11/05/15 07:12	LBR	0.47	
1,2,4-Trichlorobenzene	Not detected	ug/L	5	SW8260B	11/05/15 07:12	LBR	0.19	

J-Estimated value less than reporting limit, but greater than MDL



# Analytical Laboratory Report

Lab Sample ID: S69136.10 (continued)

Sample Tag: Duplicate

Analysis	Results	Units	RL	Method	Run Date/Time	Tech	MDL	Flags
<b>Organics - Volatiles (continued)</b>								
<b>Volatile Organics - DEQ List (continued)</b>								
1,2,3-Trichlorobenzene	Not detected	ug/L	5	SW8260B	11/05/15 07:12	LBR	0.20	
Naphthalene	Not detected	ug/L	5	SW8260B	11/05/15 07:12	LBR	0.21	
2-Methylnaphthalene	Not detected	ug/L	5	SW8260B	11/05/15 07:12	LBR	0.16	



2680 East Lansing Dr., East Lansing, MI 48823  
 Phone (517) 332-0167 Fax (517) 332-4034  
[www.meritlabs.com](http://www.meritlabs.com)

C.O.C. PAGE # \_\_\_\_\_ OF \_\_\_\_\_

92657

**REPORT TO**

CONTACT NAME

JESSE ANDERSON / MIKE SMITH

COMPANY

APPLIED ECO SYSTEMS

ADDRESS

CITY BURTON

STATE MI

ZIP CODE 48529

PHONE NO. 810 715 2525

FAX NO.

P.O. NO.

E-MAIL ADDRESS

JANDERSON@APPLIEDECOSYSTEMS.COM

QUOTE NO.

PROJECT NO./NAME

Local Print West 12990

SAMPLER(S) - PLEASE PRINT/SIGN NAME

TURNAROUND TIME REQUIRED  1 DAY  2 DAYS  3 DAYS  STANDARD  OTHER

DELIVERABLES REQUIRED  STD  LEVEL II  LEVEL III  LEVEL IV  EDD  OTHER

MATRIX CODE:	GW=GROUNDWATER SL=SLUDGE	WW=WASTEWATER DW=DRINKING WATER	S=SOIL O=OIL	L=LIQUID WP=WIPE	SD=SOLID A=AIR W=WASTE
--------------	-----------------------------	------------------------------------	-----------------	---------------------	------------------------------

# Containers & Preservatives

MERIT LAB NO. FOR LAB USE ONLY	YEAR		SAMPLE TAG IDENTIFICATION-DESCRIPTION	MATRIX	# OF BOTTLES	NONE	HCl	HNO <sub>3</sub>	H <sub>2</sub> SO <sub>4</sub>	NaOH	MeOH	OTHER	TOTAL METALS	DISOLVED METALS	Certifications	Project Locations	Special Instructions
	DATE	TIME															
69136.01	10/26/15	230	2 = mw 101 s	6W	1	1	Y	Y	Y							* metals	
.02		245	3 = mw 102 s		1	1	Y	Y	Y							ARSENIC	
.03		145	4 = mw 104 s		1	1	Y	Y	Y							COPPER	
.04		130	5 = mw 105 s		1	1	Y	Y	Y							CHROMIUM	
.05		315	6 = mw 112 s		1	1	Y	Y	Y							LEAD	
.06		400	7 = mw 107 s		1	1	Y	Y	Y							SELENIUM	
.07	10/26	430	8 = mw 106 sR		1	1	Y	Y	Y							ZINC	
.08	10/26	100	TRIP BLANK		1	1	Y									CHROMIUM SIX	
.09	10/26	130	FIELD BLANK		1	1	Y										
.10	10/26	140	Duplicate		1	1	Y										
	10/26	100	D - VN		1	1								X			
	10/26	100	D - HNO3		1	1											

RELINQUISHED BY:  
 SIGNATURE/ORGANIZATION

Sampler DATE TIME

RECEIVED BY:  
 SIGNATURE/ORGANIZATION

DATE TIME

RELINQUISHED BY:  
 SIGNATURE/ORGANIZATION

DATE 10/27 TIME 1240

RECEIVED BY:  
 SIGNATURE/ORGANIZATION

DATE 10/27/15 TIME 1250

RELINQUISHED BY:  
 SIGNATURE/ORGANIZATION

DATE TIME

RECEIVED BY:  
 SIGNATURE/ORGANIZATION

DATE TIME

SEAL NO. SEAL INTACT INITIALS NOTES: TEMP. ON ARRIVAL 83

SEAL NO. SEAL INTACT INITIALS

PLEASE NOTE: SIGNING ACKNOWLEDGES ADHERENCE TO MERIT'S SAMPLE ACCEPTANCE POLICY ON REVERSE SIDE

ATTACHMENT #4: SOIL ANALYTICAL TABLES

SOIL ANALYTICAL DATA (Metals and Detected VOCs)  
RACER - Flint West #12990

	Sample ID		SB124-4	SB124-10	SB124-21	SB125-4	SB125-13	SB125-19	SB126-4	SB126-11	SB126-15	SB127-4	SB127-8	SB127-15	SB127-20	SB128-3	SB128-7	SB128-10	SB129-4	SB129-8	SB129-18	SB130-4	SB130-10	SB130-18	SB131-4	SB131-10	SB131-18				
	Date Collected		4/21/14	4/21/14	4/21/14	4/21/14	4/21/14	4/21/14	4/21/14	4/21/14	4/21/14	4/21/14	4/21/14	4/21/14	4/21/14	4/21/14	4/21/14	4/22/14	4/22/14	4/22/14	4/22/14	4/22/14	4/22/14	4/22/14	4/22/14	4/22/14					
ANALYTE (ug/kg)	DW	GSI																													
Arsenic	5,800.00	5,800.00	D&G=B	1,130.00	1,100.00	1,830.00	570.00	1,440.00	1,410.00	1,300.00	1,250.00	1,180.00	410.00	1,630.00	2,060.00	1,780.00	500.00	1,550.00	1,150.00	2,790.00	1,740.00	1,460.00	3,580.00	1,700.00	1,980.00	1,630.00	1,300.00	2,080.00			
Chromium	18,000.00	18,000.00	D&G=B	1,220.00	1,460.00	3,350.00	2,050.00	3,260.00	4,240.00	1,220.00	2,920.00	2,870.00	1,980.00	2,560.00	4,540.00	610.00	1,460.00	2,860.00	5,890.00	2,550.00	4,080.00	4,730.00	3,090.00	1,150.00	2,770.00	1,640.00	2,800.00	2,620.00			
Copper	5,800,000.00	120,000.00	GX	1,700.00	2,300.00	8,200.00	7,400.00	6,100.00	11,400.00	3,400.00	5,600.00	1,600.00	3,000.00	5,800.00	1,200.00	3,900.00	5,600.00	5,300.00	13,000.00	3,600.00	7,200.00	17,700.00	1,700.00	9,800.00	8,500.00	3,100.00	7,900.00				
Lead	700,000.00	5,000,000.00	GX	2,510.00	3,120.00	7,580.00	13,800.00	5,100.00	8,590.00	2,280.00	3,790.00	5,470.00	4,710.00	5,740.00	7,330.00	950.00	6,250.00	11,400.00	6,950.00	104,000.00	6,100.00	7,420.00	123,000.00	2,110.00	6,510.00	36,400.00	4,740.00	6,020.00			
Selenium	4,000.00	410.00	G=B					210.00				210.00				160.00				130.00		150.00	140.00								
Zinc	2,400,000.00	2,600,000.00	G=B	4,600.00	5,100.00	19,000.00	11,400.00	12,200.00	20,800.00	5,900.00	8,600.00	14,700.00	3,700.00	10,300.00	20,300.00	2,400.00	6,000.00	13,200.00	9,900.00	21,300.00	13,100.00	19,200.00	51,800.00	5,800.00	18,000.00	16,800.00	13,600.00	18,600.00			
ANALYTE (ug/kg)	DW	GSI																													
2 Butanone (MEK)	260,000.00	44,000.00		45.00	71.00	56.00		165.00	79.00	82.00	150.00	75.00	46.00	66.00	148.00	126.00	44.00	123.00	127.00	40.00	53.00	82.00	69.00	68.00	70.00	79.00	65.00	164.00			
Vinyl Chloride	40.00	260.00							23.00														73.00				90.00				
1,1-Dichloroethene	140.00	2,600.00																								34.00		18.00			
trans-1,2-Dichloroethene	2,000.00	30,000.00																								100.00		62.00			
1,1-Dichloroethane	18,000.00	15,000.00																								69.00		35.00			
cis-1,2-Dichloroethene	1,400.00	12,000.00						58.00				350.00									300.00				6,380.00		2,820.00				
Tetrahydrofuran	1,900.00	220,000.00		170.00	190.00	190.00	150.00	180.00	180.00	140.00	190.00	210.00	190.00	190.00	170.00	190.00	150.00	150.00	140.00	150.00	180.00	180.00	180.00	170.00	160.00	150.00	180.00	160.00			
Chloroform	1,600.00	7,000.00								16.00																					
1,1,1-Trichloroethane	4,000.00	1,800.00								11.00													33.40								
Benzene	100.00	4,000.00																								36.00					
Trichloroethene	100.00	4,000.00						1,420.00				3,650.00															6,170.00		6,080.00	28.00	12,160.00
Toluene	16,000.00	5,400.00		11.00																	13.00		19.00	31.00				45.00			
Ethylbenzene	1,500.00	360.00																								15.00					
Total Xylenes	5,600.00	820.00																			21.00		92.00				91.00				
Isopropylbenzene	91,000.00	3,200.00																			16.00		13.00								
n-Propylbenzene	1,600.00	NC																								16.00					
1,2-Dichlorobenzene	14,000.00	280.00																			21.00										
1,2,4-Trimethylbenzene	2,100.00	570.00																			14.00		24.00				22.00				
1,2,3-Trimethylbenzene	NC	NC																			13.50		13.40				11.80				
Naphthalene	35,000.00	730.00		10.80			14.40	17.00		13.70			12.90		14.30			345.70	46.90	39.50	12.50	51.50				100.30					
2-Methylnaphthalene	57,000.00	4,200.00		10.20			14.00	39.																							

## SOIL ANALYTICAL DATA (Detected VOCs)

RACER - Flint West #12990

	Sample ID		SB132-12	SB132-15	SB133-17	SB133-19	SB133-20
	Date Collected		7/10/14	7/10/14	7/10/14	7/10/14	7/10/14
ANALYTE (ug/kg)	DW	GSI					
2 Butanone (MEK)	260,000.00	44,000.00					
Vinyl Chloride	40.00	260.00		180	89	46	
1,1-Dichloroethene	140.00	2,600.00					
trans-1,2-Dichloroethene	2,000.00	30,000.00				18.00	
1,1-Dichloroethane	18,000.00	15,000.00				13.00	
cis-1,2-Dichloroethene	1,400.00	12,000.00		2200.00	1200.00	1990.00	530.00
Tetrahydrofuran	1,900.00	220,000.00		1500.00	300.00	150.00	160.00
Chloroform	1,600.00	7,000.00					
1,1,1-Trichloroethane	4,000.00	1,800.00				24.90	35.20
Benzene	100.00	4,000.00					
Trichloroethene	100.00	4,000.00		29500	13700	11680	10860
Tetrachloroethene	100.00	1,200.00					17
Toluene	16,000.00	5,400.00					
Ethylbenzene	1,500.00	360.00					
Total Xylenes	5,600.00	820.00					
Isopropylbenzene	91,000.00	3,200.00					
n-Propylbenzene	1,600.00	NC					
1,2 -Dichlorobenzene	14,000.00	280.00					
1,2,4-Trimethylbenzene	2,100.00	570.00					
1,2,3-Trimethylbenzene	NC	NC					
Naphthalene	35,000.00	730.00					
2-Methylnaphthalene	57,000.00	4,200.00				15.00	12.00
							9.20

## NOTES:

	Blank cells indicate no detectable concentrations
X	Exceeds DW criteria
X	Exceeds GSI criteria
X	Exceeds both DW and GSI criteria
X	Compound also found in associated method blank, suggesting a laboratory artifact.
NC	Insufficient data to develop criterion/no criterion
GX	Groundwater to Surface Water Interface Criteria - calculated based on 257ppm total hardness in the Flint River

SOIL ANALYTICAL DATA  
RACER - Flint West #12990

		Sample ID	SB134-18	SB135-19	SB136-19	SB137-18	SB134-20	SB135-21	SB136-21	SB137-20.5
		Date Collected	12/22/14	12/22/14	12/22/14	12/22/14	12/22/14	12/22/14	12/22/14	12/22/14
ANALYTE (ug/kg)	DW	GSI								
Arsenic	4,600	4,600	380	1,900	1,870	1,660	1,690	2,080	3,350	3,040
Cadmium	6,000	5,400	G							
Copper	5,800,000	120,000	G	4,500	4,000	4,600	4,200	3,000	3,900	4,300
Lead	700,000	7,700,000	G	5,690	2,850	3,060	2,810	3,380	2,890	3,740
Selenium	4,000	400								
Zinc	2,400,000	260,000	G	5,900	17,500	13,600	13,500	19,500	15,300	18,800
2 Butanone (MEK)	260,000	44,000								
Vinyl Chloride	40	260			14					56
1,1-Dichloroethene	140	2,600								
trans-1,2-Dichloroethene	2,000	30,000			10.9		14			
1,1-Dichloroethane	18,000	15,000								
cis-1,2-Dichloroethene	1,400	12,000			1,100	340	670	120	800	450
Tetrahydrofuran	1,900	220,000								
Chloroform	1,600	7,000								
1,1,1-Trichloroethane	4,000	1,800				12.5	20.5		8.7	
Benzene	100	4,000								
Trichloroethene	100	4,000			7,890	8,760	4,250	2,040	6,540	9,390
Tetrachloroethene	100	1,200								
Toluene	16,000	5,400		70						
Ethylbenzene	1,500	360		16						
Total Xylenes	5,600	820		85						
Isopropylbenzene	91,000	3,200								
n-Propylbenzene	1,600	NC		14						
1,2 -Dichlorobenzene	14,000	280								
1,2,4-Trimethylbenzene	2,100	570								
1,2,3-Trimethylbenzene	NC	NC								
Naphthalene	35,000	730		36.6						
2-Methylnaphthalene	57,000	4,200		29						

NOTES:

X	Blank cells indicate no detectable concentrations
X	Exceeds residential and non-residential DW criteria
X	Exceeds GSI criteria calculated based on 257ppm total hardness in the Flint River
X	Exceeds both DW and GSI criteria
X	Compound also found in associated method blank, suggesting a laboratory artifact.
NC	Insufficient data to develop criterion/no criterion
GX	Groundwater to Surface Water Interface Criteria - calculated based on 257ppm total hardness in the Flint River